

## SEQUENCE LISTING

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 Durham, Margarita  
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<120> COMPOSITIONS AND METHODS FOR THE THERAPY  
 AND DIAGNOSIS OF LUNG CANCER

<130> 210121.455C17

<140> US

<141> 2001-11-30

<160> 469

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 315

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 236, 241

<223> n = A,T,C or G

<400> 1

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ttcatctcca gcagagacaa cggaggaggr tcccaccagg acggttctca ttatttatat 180
gttaatatgt ttgtaaactc atgtacagtt ttttttgggg gggaagcaat gggaanggta 240
naaattacaa atagaatcat ttgctgtaat ccttaaatgg caaacggtca ggccacgtga 300
aaaaaaaaaa aaaaaa                                     315
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1000700-1300

<210> 2  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<400> 2  
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 atatatataa acaaatacaa aaagttttga gtggttcagc ttttttattt tttttaatgg 120  
 cataactttt aacaacactg ctctgtaatg ggttgaactg tgg tactcag actgagataa 180  
 ctgaaatgag tggatgtata gtgttattgc ataattatcc cactatgaag caaagggaact 240  
 ggataaattc ccagtcctaga ttattagcct ttgttaacca tcaagcacct agaagaagaa 300  
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 gtaaaaaaaaa aaaaaaaaaa 380

<210> 3  
 <211> 346  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 316, 317, 318, 322, 323, 326, 329, 330, 331, 336, 337, 339,  
 340, 342, 343  
 <223> n = A,T,C or G

<400> 3  
 ttgtaagtat acaatttttag aaaggattaa atgttattga tcattttact gaatactgca 60  
 catcttcacc atacaccatc cactttccaa taacatttaa tcctttctaa aattgtaagt 120  
 atacaattgt actttctttg gattttcata acaaatacac catagactgt taattttatt 180  
 gaagtttctt taatggaatg agtcattttt gtcttgtgct tttgaggtta cctttgcttt 240  
 gacttccaac aatttgatca tatagtgttg agctgtggaa atctttaagt ttattctata 300  
 gcaataattt ctatnnnag annccnggnn naaaannann annaaa 346

<210> 4  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 297, 306, 332  
 <223> n = A,T,C or G

<400> 4  
 actagtctca ttactccaga attatgctct tgtacctgtg tggctgggtt tcttagtcgt 60  
 tggtttggtt tggttttttg aactgggtatg taggggtggtt cacagttcta atgtaagcac 120  
 tctcttctcc aagttgtgct ttgtggggac aatcattctt tgaacattag agaggaaggc 180  
 agttcaagct gttgaaaaga ctattgctta tttttgtttt taaagacctt cttgacgtca 240  
 tgtggacagt gcacgtgcct tacgctacat cttgttttct aggaagaagg ggatgcnggg 300  
 aaggantggg tgctttgtga tggataaaac gnctaaataa cacaccttta ctttttgaaa 360  
 aaaacaaaac aa 372

<210> 5  
 <211> 698

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<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> 8, 345, 422, 430, 433, 436, 438, 472, 481, 486, 515, 521,
536, 549, 553, 556, 557, 559, 568, 593, 597, 605, 611, 613,
616, 618, 620, 628, 630, 632, 634, 635, 639, 643, 647, 648,
649, 652, 654, 658, 664, 690
<223> n = A,T,C or G
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<400> 5						
actagtanga	tagaaacact	gtgtcccgag	agtaaggaga	gaagctacta	ttgattagag	60
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gcataaagcc	aatgtagtcc	agtttctaag	atcatgtttc	aagctaactg	aatcccactt	180
caatacacac	tcatgaactc	ctgagtgaag	aataacaggc	ccaagcctgt	ggtagtatgt	240
gcacacttgc	tagactcaga	aaaaatacta	ctctcataaa	tgggtgggag	tattttgggt	300
gacaacctac	tttgcttggc	tgagtgaagg	aatgatattc	atatnttcat	ttattccatg	360
gacattttagt	tagtgctttt	tatataccag	gcatgatgct	gagtgacact	cttgtgtata	420
tntccaaatn	ttngtncngt	cgctgcacat	atctgaaatc	ctatatthaag	antttcccaa	480
natgangtcc	ctgggttttc	cacgccactt	gatcngtcaa	ngatctcacc	tctgtntgtc	540
ctaaagacct	ctnctnnang	gttagacngg	acctctcttc	tcccttcccg	aanaatnaag	600
tgtgngaaga	nancncncn	ccccctncn	tncnnectng	cncgctnnnc	cnentgtngg	660
ggnggccgcc	cccgcggggg	gaccccccn	ttttcccc			698

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<210> 6
<211> 740
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
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592, 638, 651, 660, 664, 673, 675, 697, 706, 711, 715, 716,
717, 723, 724, 725, 733
<223> n = A,T,C or G
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<400>	6						
actagtcaaa	aatgctaaaa	taatttggga	gaaaaatattt	tttaagtagt	gttatagttt	60	
catgtttatc	ttttattatg	tnttgtgaag	ttgtgtcttt	tcactaatta	cctatactat	120	
gccaatattt	ccttatatct	atccataaca	tttatactac	atttgtaaga	gaatatgcac	180	
gtgaaactta	acactttata	aggtaaaaaa	gaggtttcca	agatttaata	atctgatcaa	240	
gttcttggtt	ttttcaaata	gaatggactt	ggtctgttaa	ggggctaaag	gagaagaaga	300	
agataaggtt	aaaagttggt	aatgacaaaa	cattctaaaa	gaaatgcaaa	aaaaaattta	360	
ttttcaagcc	ttcgaactat	ttaaggaaaag	caaaatcatt	tcctanatgc	atatcatttg	420	
tgagantttc	tcantaatat	cctgaatcat	tcatttcagc	tnaggcttca	tgttgactcg	480	
atatgtcatc	tagggaaagt	ctatttcatg	gtccaaacct	gttgccatag	ttggtnaggc	540	
tttcctttaa	ntgtgaanta	ttnacangaa	attttctctt	tnanagttct	tnatagggtt	600	
aggggtgtgg	gaaaagcttc	taacaatctg	tagtggtncg	tgttatctgt	ncagaaccan	660	
aatnaccgat	cgnnaaagg	actgggtcta	tttacangaa	cgaatnatct	ngttnnntgt	720	
gtnnncaact	cngnggagcc					740	

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<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 265, 268, 457, 470, 485, 546, 553, 566, 590, 596, 613, 624,  
639, 653, 659, 661  
<223> n = A,T,C or G

<400> 7  
gctggggagc tcggcatggc ggtccccgct gcagccatgg ggcctcggc gttggggccag 60  
agcgccccgc gctcgatggc cccgtggtgc tcagttagca gcggccccgc gcgctacgtg 120  
cttgggatgc aggagctgtt ccggggccac agcaagaccg cgagttcctg gcgcacagcg 180  
ccaagggtga ctcggtggcc tggagttgcg acgggcgtcg cctacctcgg ggtcttcgac 240  
aagacgccac gtcttcttgc tgganaanga ccgttgggtca aagaaaaaca ttatcgggga 300  
catggggata gtgtggacca ctttgttggc atccaagtaa tcctgacctt tttgttacgg 360  
cgtctggaga taaaaccatt cgcactctgg atgtgaggac tacaaaatgc attgccactg 420  
tgaacactaa aggggagaac attaatatct gctggantcc tgatgggcan accattgctg 480  
tagcnacaag gatgatgtgg tgactttatt gatgccaaga aaccccgttc caaagcaaaa 540  
aaacanttcc aanttcgaag tcaccnaaat ctcttggaac aatgaacatn aatatnttct 600  
tcctgacaat ggnccctggg tgtntcacat cctcagctnc cccaaaactg aancctgtnc 660  
natccacccc 670

<210> 8  
<211> 689  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 253, 335, 410, 428, 448, 458, 466, 479, 480, 482, 483, 485,  
488, 491, 492, 495, 499, 500, 502, 503, 512, 516, 524, 525,  
526, 527, 530, 540, 546, 550, 581, 593, 594, 601, 606, 609,  
610, 620, 621, 622, 628, 641, 646, 656, 673  
<223> n = A,T,C or G

<400> 8  
actagtatct aggaatgaac agtaaaagag gagcagttgg ctacttgatt acaacagagt 60  
aatgaagta ctggatttgg gaaaacctgg ttttattaga acatatggaa tgaaagccta 120  
cacctagcat tgcctactta gccccctgaa ttaacagagc ccaattgaga caaacccttg 180  
gcaacaggaa attcaaggga gaaaaagtaa gcaacttggg ctaggatgag ctgactccct 240  
tagagcaaag ganagacagc cccattacc aaataccatt tttgcctggg gcttgtgcag 300  
ctggcagtgt tcctgcccc gcatggcacc ttatngtttt gatagcaact tcgttgaatt 360  
ttcaccaact tattacttga aattataata tagcctgtcc gtttgcctgtn tccaggctgt 420  
gatatatntt cctagtgggt tgacttttaa aataaatnag gtttantttt ctccccccnn 480  
cnntnctncc nntcnctcnn cnntcccccc cnctcngtcc tccnnnttnn gggggggccn 540  
ccccncggn ggacccccct ttggtccctt agtggaggtt natggccctt ggnnttatcc 600  
nggcctann tttcccgtn nnaaatgntt cccctccca ntccnccac ctcaancggt 660  
aagcctaagt ttntaccctg ggggtcccc 689

<210> 9  
<211> 674  
<212> DNA  
<213> Homo sapiens

1500700700



<220>  
 <221> misc\_feature  
 <222> 602, 632, 639, 668  
 <223> n = A,T,C or G

<400> 9  
 gtccactctc ctttgagtgt actgtcttac tgtgcaactct gtttttcaac tttctagata 60  
 taaaaaatgc ttgttctata gtggagtaag agctcacaca cccaaggcag caagataact 120  
 gaaaaaagcg aggctttttt gccaccttgg taaaggccag ttcactgcta tagaactgct 180  
 ataagcctga agggaaagtag ctatgagact ttccattttt cttagtcttc ccaataggct 240  
 ccttcattgga aaaaggcttc ctgtaataat tttcacctaa tgaattagca gtgtgattat 300  
 ttctgaaata agagacaaat tgggccgcag agtcttcctg tgatttataa taaacaaccc 360  
 aaagttttgt ttggtcttca ccaaaggaca tactctaggg ggtatgttgt tgaagacatt 420  
 caaaaacatt agctgttctg tctttcaatt tcaagttatt ttggagactg cctccatgtg 480  
 agttaattac ttgtctctgg aactagcatt attgtcatta tcattcacatt ctgtcatcat 540  
 catctgaata atattgtgga tttccccctc tgcttgcac ttcttttgac tcctctggga 600  
 anaaatgtca aaaaaaaagg tcgatctact cngcaaggnc catctaataca ctgcgctgga 660  
 aggaccnct gcc 674

<210> 10  
 <211> 346  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 320, 321, 322, 325, 326, 328, 329, 330, 332, 333, 334, 335, 342  
 <223> n = A,T,C or G

<400> 10  
 actagtctgc tgatagaaag cactatacat cctattgttt ctttctttcc aaaatcagcc 60  
 ttctgtctgt aacaaaaatg tactttatag agatggagga aaaggctctaa tactacatag 120  
 ccttaagtgt ttctgtcatt gttcaagtgt attttctgta acagaaacat atttggaatg 180  
 tttttctttt ccccttataa attgtaattc ctgaaatact gctgctttaa aaagtccac 240  
 tgtcagatta tattatctaa caattgaata ttgtaaatat acttgtctta cctctcaata 300  
 aaagggtact tttctattan nnagnngnnn gnnnnataaa anaaaa 346

<210> 11  
 <211> 602  
 <212> DNA  
 <213> Homo sapiens

<400> 11  
 actagtaaaa agcagcattg ccaaataatc cctaattttc cactaaaaat ataatgaaat 60  
 gatgttaagc tttttgaaa gtttaggtta aacctactgt tgttagatta atgtatttgt 120  
 tgcttccctt tatctggaat gtggcattag cttttttatt ttaaccctct ttaattctta 180  
 ttcaattcca tgacttaagg ttggagagct aaacactggg atttttggat aacagactga 240  
 cagttttgca taattataat cggcattgta catagaaagg atatggctac cttttgttaa 300  
 atctgcactt tctaaatac aaaaaaggga aatgaagtta taaatcaatt tttgtataat 360  
 ctgtttgaaa catgagtttt atttgcttaa tattagggct ttgccccttt tctgtaagtc 420  
 tcttgggatc ctgtgtagaa ctgttctcat taaacaccaa acagttaagt ccattctctg 480  
 gtactagcta caaattcggg ttcatattct acttaacaat ttaaataaac tqaaatatit 540

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<400> 13
cactagtcac tcattagcgt tttcaatagg gctcttaagt ccagtagatt acgggtagtc 60
agttgacgaa gatctggttt acaagaacta attaaatggt tcattgcatt tttgtaagaa 120
cagaataatt ttataaaatg tttgtagttt ataattgccg aaaataattt aaagacactt 180
ttttctctgtg tgtgcaaatg tgtgtttgtg atccattttt tttttttttt taggacacct 240
gttttactagc tagcttttaca atatgccaaa aaaggatttc tccctgaccc catccgtggt 300
tcaccctctt ttcccccatc gctttttgcc ctagtttata acaaaggaat gatgatgatt 360
taaaaagttag ttctgtatct tcagtatctt ggtctttccag aacctctctg ttgggaaggg 420
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<210> 14
<211> 679
<212> DNA
<213> Homo sapiens
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<400>	14						
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agtcccgnac	ccgttcggcc	cangctnagt	tagnccctcac	catnccggtc	aaaggangca	120	
ccaagtgcac	caaataacctg	cngtnccgat	ntaaattcat	cttctggctt	gccgggattg	180	
ctgtccntct	cattggacta	nggctccgat	ncgactctca	gaccanganc	atcttgcanc	240	
naganactaa	tnatnattnt	tcagactctt	acacaggagt	ctatatctcg	atcggtatccg	300	
gcncctcnt	gatgctgggt	ggcttctctga	gctgctgcg	ggctgtgcaa	gagtcctcant	360	
gcatgctggg	actgttcttc	ggcttctntct	tggtgatatn	cgccattgaa	atactgctcg	420	
ccatctgggg	atatccact	ncgatnatgt	gattaaggaa	ntccacggag	ttttacaagg	480	
acacgtacaa	cnacctgaaa	accnnggatg	anccccaccg	ggaancnctg	aangccatcc	540	
actatgcgtt	gaactgcaat	ggtttggtctg	ggngccttga	acaatttaat	cncatacatc	600	
tggccccann	aaaggacntn	ctcgannect	tcnccgtgna	attcngttct	gatnccatca	660	
cagaagtctc	gaacaatcc					679	

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<210> 15
<211> 695
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
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242, 261, 266, 270, 278, 285, 286, 298, 311, 324, 337, 350,
363, 384, 391, 395, 405, 411, 424, 427, 443, 448, 453, 455,
458, 463, 467, 470, 479, 482, 484, 493, 499, 505, 518
<223> n = A,T,C or G
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<221> misc_feature
<222> 520, 523, 531, 540, 584, 595, 597, 609, 611, 626, 628, 651,
652, 657, 661, 665, 669, 672, 681, 683, 691, 693
<223> n = A,T,C or G
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<400> 15
actagtggat aaaggccagg gatgctgctc aaacctcctac catgtacagg gacgtctccc 60
cattacaact acccaatccg aagtgtcaac tgtgtcagga ctaanaaacc ctggttttga 120
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```

ttaaanaagc gcctgaaaaa aggggagcca caaatctgtc tgcttcctca cnttantcnt 180
tggcaaatna gcattctgtc tcnttggctg cngcctcanc ncaaaaaanc ngaactcnat 240
cnggcccagg aatacatctc ncaatnaacn aaattganca aggcnnntggg aaatgccnga 300
tgggattatc ntccgcttgt tganccttcta agtttcnttc ccttcattcn accctgccag 360
ccnagtcttg ttagaaaaat gccngaattc naacnccggt tttcntactc ngaattttaga 420
tctncanaaa cttcctggcc acnattcnaa ttnanggnca cgnacanatn ccttccatna 480
ancncacccc acntttgana gccangacaa tgactgcntn aantgaaggc ntgaaggaan 540
aactttgaaa ggaaaaaaa ctttgtttcc ggccccttcc aacncttctg tgttnancac 600
tgctttctng naaccctgga agcccnngna cagtgttaca tgttgttcta nnaaacngac 660
ncttnaatnt cnatcttccc nanaacgatt ncnc 695

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<210> 16

<211> 669

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 299, 354, 483, 555, 571, 573, 577, 642, 651, 662, 667

<223> n = A,T,C or G

<400> 16

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cgccgaagca gcagcgcagg ttgtccccgt tccccctccc ccttcccttc tccggttgcc 60
ttccccggcc ctttacctc cacagtcccc gtccccccat gtcccagaaa caagaagaag 120
agaaccctgc ggaggagacc ggcgaggaga agcaggacac gcaggagaaa gaaggatttc 180
tgcttgagag agctgaagag gcaaagctaa aggccaaata cccaagccta ggacaaaagc 240
ctggaggctc cgacttcctc atgaagagac tccagaaagg gcaaaagtac tttgactcng 300
gagactacaa catggccaaa gccaacatga agaataagca gctgccaaagt gcangaccag 360
acaagaacct ggtgactggg gatcacatcc ccacccaca ggatctgccc agagaaagtc 420
ctcgtctgtc accagcaagc ttgcgggttg ccaagttgaa tgatgctgcc ggggctctgc 480
canatctgag acgcttcctt ccctgccccca cccgggtcct gtgctggctc ctgcccttcc 540
tgcttttgca gccangggc aggaagtggc ncnggtngtg gctggaaagc aaaacccttt 600
cgtgttggtg tcccacccat ggagcccctg gggcgagccc angaacttga ncctttttgt 660
tntcttncc 669

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<210> 17

<211> 697

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 33, 48, 50, 55, 59, 60, 76, 77, 78, 90, 113, 118, 130, 135,  
141, 143, 150, 156, 166, 167, 170, 172, 180, 181, 190, 192,  
194, 199, 201, 209, 212, 224, 225, 226, 230, 233, 234, 236,  
242, 244, 251, 253, 256, 268, 297, 305, 308, 311, 314

<223> n = A,T,C or G

<221> misc\_feature

<222> 315, 317, 322, 324, 327, 333, 337, 343, 362, 364, 367, 368,  
373, 384, 388, 394, 406, 411, 413, 423, 429, 438, 449, 450,  
473, 476, 479, 489, 491, 494, 499, 505, 507, 508, 522, 523,  
527, 530, 533, 535, 538, 539, 545, 548, 550, 552, 555

<223> n = A,T,C or G

<221> misc\_feature  
 <222> 562, 563, 566, 568, 572, 577, 578, 580, 581, 591, 594, 622,  
 628, 632, 638, 642, 644, 653, 658, 662, 663, 665, 669, 675,  
 680, 686, 689  
 <223> n = A,T,C or G

<400> 17  
 gcaagatatg gacaactaag tgagaaggta atnctctact gctctagntn ctccnngcnn 60  
 gacgcgtga ggagannnac gctggcccan ctgccggcca cacacgggga tcntggtnat 120  
 gcctgcccan gggancccca ncncctcgan cccatntcac acccgnnccn tncgcccacn 180  
 ncctggctcn cncngcccng nccagctcnc gnccectcc gccnnnctcn ttannctctc 240  
 cncnccctcc ncnacnacct cctaccncng gctccctccc cagccccccc ccgcaancct 300  
 ccacnacnc ntcnnncga ancnccnctc gcncctngcc ccngccccct gccccccgcc 360  
 cncnacnncg cgntcccccg cgcncgcngc ctncccccct cccacnacag ncnacccgc 420  
 agncacgcnc tccgccnct gacgcccenn ccgcgcgcgc tcaccttcat ggnccnacng 480  
 ccccgctcnc ncnctgcnc gccgcnngg cgccccgcc cnnccgngtn ccncncgng 540  
 ccccgcnngn angcngtgcg cncangncc gngccggnnc ncaccctccg ncnccgcc 600  
 cgccccgctg gggctccgc cncgcgntc antcccncc cntncgcca ctntccgntc 660  
 cnnnctcnc gctcngcgen cgcncncnc cccccc 697

<210> 18  
 <211> 670  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 234, 292, 329, 437, 458, 478, 487, 524, 542, 549, 550, 557,  
 576, 597, 603, 604, 646, 665  
 <223> n = A,T,C or G

<400> 18  
 ctgctgtgaa ggggtgcagta cctaagccgg agcggggtag aggcgggccc gcacccccctt 60  
 ctgacctcca gtgccgccgg cctcaagatc agacatggcc cagaacttga acgacttggc 120  
 gggacggctg cccgccgggc cccggggcat gggcacggcc ctgaagctgt tgctgggggc 180  
 cggcgccgtg gcctacggtg tgcgcgaatc tgtgttcacc gtggaaggcg ggcncagagc 240  
 catcttcttc aatcgatcg gtggagtgc caggacacta tcctgggccg anggccttca 300  
 cttcaggatc cttggttcca gtacccanc atctatgaca ttcgggccag acctcgaaaa 360  
 aatctcctcc ctacaggctc caaagaccta cagatggtga atatctccct gcgagtgttg 420  
 tctcgaccaa tgctcangaa cttcctaaca tgttccancg cctaagggtt ggactacnaa 480  
 gaacgantgt tgccgtccat tgctacgaag tgctcaagaa tttnggtggc caagttcaat 540  
 gncctcacn ctgatnccc agcggggcca agttanccct ggttgatccc cgggganctg 600  
 acnnaaaag gccaaaggact tcccctcatc ctggataatg tggcncac aaagctcaac 660  
 tttanccacc 670

<210> 19  
 <211> 606  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 506

1000700-13001

<223> n = A,T,C or G

<400> 19

```
actagtgcc  acctcagctc  ccaggccagt  tctctgaatg  tcgaggagtt  ccaggatctc  60
tggcctcagt  tgtccttggt  tattgatggg  ggacaaattg  gggatggcca  gagccccgag  120
tgtgccttg  gctcaactgt  ggttgatttg  tctgtgcccg  gaaagtttg  catcattcgt  180
ccaggctgtg  ccctggaaag  tactacagcc  atcctccaac  agaagtacgg  actgctcccc  240
tcacatgcgt  cctacctgtg  aaactctggg  aagcaggaag  gcccaagacc  tggtgctgga  300
tactatgtgt  ctgtccactg  acgactgtca  aggcctcatt  tgcagaggcc  accggagcta  360
gggcactagc  ctgactttta  aggcagtgtg  tctttctgag  cactgtagac  caagcccttg  420
gagctgctgg  tttagccttg  cacctgggga  aaggatgtat  ttatttgat  tttcatatat  480
cagccaaaag  ctgaatggaa  aagttnagaa  cattcctagg  tggccttatt  ctaataagtt  540
tcttctgtct  gttttgtttt  tcaattgaaa  agttattaaa  taacagattt  agaacttagt  600
gagacc                                           606
```

<210> 20

<211> 449

<212> DNA

<213> Homo sapiens

<400> 20

```
actagttaac  aacagcagca  gaaacatcag  tatcagcagc  gtcgccagca  ggagaatatg  60
cagcgccaga  gccgaggaga  acccccgtc  cctgaggagg  acctgtccaa  actcttcaaa  120
ccaccacagc  cgctgccag  gatggactcg  ctgctcattg  caggccagat  aaacacttac  180
tgccagaaca  tcaaggagtt  cactgcccga  aacttaggca  agctcttcac  ggcccaggct  240
cttcaagaat  acaacaacta  agaaaaggaa  gtttcagaa  aagaagttaa  catgaactct  300
tgaagtcaca  ccaggggcaac  tcttggaaga  aatatatttg  catattgaaa  agcacagagg  360
atctctttag  tgtcattgcc  gatcttggtc  ataacagtgt  ctttctagcc  ataataaaat  420
aaaacaaaat  cttgactgct  tgctcaaaa                                           449
```

<210> 21

<211> 409

<212> DNA

<213> Homo sapiens

<400> 21

```
tatcaatcaa  ctggtgaata  attaaacaat  gtgtggtgtg  atcatacaaa  gggtagcact  60
caatgataaa  aggaacaagc  tgcttatatg  tggaacaaca  tggatgcatt  tcagaaactt  120
tatgttgagt  gaaagaacaa  acacggagaa  catactatgt  ggttctcttt  atgtaacatt  180
acagaaataa  aaacagaggc  aaccaccttt  gaggcagtat  ggagtggat  agactggaaa  240
aagggaaggaa  ggaaactcta  cgctgatgga  aatgtctgtg  tcttcattgg  gtggtagtta  300
tgtggggata  tacatttgtc  aaaatttatt  gaactatata  ctaaagaact  ctgcatttta  360
ttgggatgta  aataatacct  caattaaaaa  gacaaaaaaa  aaaaaaaaaa                                           409
```

<210> 22

<211> 649

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 263, 353, 610, 635, 646

<223> n = A,T,C or G

Sequence

```

<400> 22
acaattttca ttatcttaag cacattgtac atttctacag aacctgtgat tattctcgca 60
tgataaggat ggtacttgca tatgggtgaat tactactgtt gacagtttcc gcagaaatcc 120
tatttcagtg gaccaacatt gtggcatggc agcaaagcc aacattttgt ggaatagcag 180
caaatctaca agagaccctg gttgggtttt cgttttggtt tctttgtttt ttcccccttc 240
tcctgaatca gcagggatgg aangagggta gggaggttat gaattactcc ttccagtagt 300
agctctgaag tgtcacattt aatatcagtt ttttttaaac atgattctag ttnaatgtag 360
aagagagaag aaagaggaag tgttcacttt ttaatacac tgatttagaa atttgatgtc 420
ttatatcagt agttctgagg tattgatagc ttgctttatt tctgccttta cggtgacagt 480
gttgaagcag ggtgaataac taggggcata tatatttttt tttttgttaa gctgtttcat 540
gatgttttct ttggaatttc cggataagtt caggaaaaca tctgcatggt gttatctagt 600
ctgaagttcn tatccatctc attacaacaa aaacnccag aacggnntg 649

```

```

<210> 23
<211> 669
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 642, 661
<223> n = A,T,C or G

```

```

<400> 23
actagtgcg tactggctga aatccctgca ggaccaggaa gagaaccagt tcagactttg 60
tactctcagt caccagctct ggaattagat aaattccttg aagatgtcag gaatgggac 120
tactctctga cagcctttgg gctgcctcgg cccagcagc cacagcagga ggaggtgaca 180
tcacctgtcg tgccccctc tgcaagact ccgacacctg aaccagctga ggtggagact 240
cgcaaggtgg tgctgatgca gtgcaacatt gagtcggtgg aggagggagt caaacaccac 300
ctgacacttc tgctgaagtt ggaggacaaa ctgaaccggc acctgagctg tgacctgatg 360
ccaaatgaga atatccccga gttggcggct gagctggtgc agctgggctt cattagttag 420
gctgaccaga gccggttgac ttctctgcta gaagagactt gaacaagttc aattttgcca 480
ggaacagtac cctcaactca gccgctgtca ccgtctctc ttagagctca ctcgggccag 540
gccctgatct gcgctgtggc tgccttgac gtgctgcacc ctctgtcctt cccccagtc 600
agtattacct gtgaagccct tccctccttt attattcagg anggctgggg gggctccttg 660
nttctaacc 669

```

```

<210> 24
<211> 442
<212> DNA
<213> Homo sapiens

```

```

<400> 24
actagtacca tcttgacaga ggatacatgc tcccaaacg tttgttacca cacttaaaaa 60
tcaactgcat cattaagcat cagtttcaaa attatagcca ttcattgattt actttttcca 120
gatgactatc attattctag tcttttgaat ttgtaagggg aaaaaaaaca aaaacaaaaa 180
cttacgatgc acttttctcc agcacatcag atttcaaatt gaaaattaaa gacatgctat 240
ggtaatgcac ttgctagtac tacacacttt ggtacaacaa aaaacagagg caagaaacaa 300
cggaagaga aaagccttcc tttgttgccc cttaaaactga gtcaagatct gaaatgtaga 360
gatgatctct gacgatacct gtatgttctt attgtgtaaa taaaattgct ggtatgaaat 420
gacctaaaaa aaaaaaaaga aa 442

```

```

<210> 25
<211> 656

```

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 330, 342, 418, 548, 579, 608  
<223> n = A,T,C or G

<400> 25  
tgcaagtacc acacactggt tgaattttgc acaaaaagtg actgtaggat caggtgatag 60  
ccccggaatg tacagtgtct tgggtcacca agatgccttc taaaggctga cataccttgg 120  
accctaattg ggcagagagt atagccctag cccagtgggtg acatgaccac tccctttggg 180  
aggcctgagg tagaggggag tggatgtgtg tttctcagtg gaagcagcac atgagtgggt 240  
gacaggatgt tagataaagg ctctagttag ggtgtcattg tcatttgaga gactgacaca 300  
ctcctagcag ctggtaaagg ggtgctggan gccatggagg anctctagaa acattagcat 360  
gggctgatct gattacttcc tggcatcccg ctcactttta tgggaagtct tattagangg 420  
atgggacagt ttccatatac ctgtctgtgg agctctggaa cactctctaa atttccctct 480  
attaaaaatc actgccctaa ctacacttcc tccttgaagg aatagaaatg gaactttctc 540  
tgacatantt cttggcatgg ggagccagcc acaaatgana atctgaacgt gtccagggtt 600  
ctcctganac tcactacat agaattgggt aaacctccc ttggaataag gaaaaa 656

<210> 26  
<211> 434  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 395  
<223> n = A,T,C or G

<400> 26  
actagttcag actgccacgc caacccacaga aaatacccca catgccagaa aagtgaagtc 60  
ctagggtgtt ccatctatgt ttcaatctgt ccatctacca ggcctcgcga taaaaacaaa 120  
acaaaaaac gctgccagggt tttagaagca gttctggtct caaaaccatc aggatcctgc 180  
caccagggtt cttttgaaat agtaccacat gtaaaaggga atttggcttt cacttcatct 240  
aataactgaa ttgtcaggct ttgattgata attgtagaaa taagttagcct tctgttgtgg 300  
gaataagtta taatcagtat tcactctctt gttttttgtc actcttttct ctctaattgt 360  
gtcatttgta ctgtttgaaa aatatttctt ctatnaaatt aaactaacct gccttaaaaa 420  
aaaaaaaaaa aaaa 434

<210> 27  
<211> 654  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 505, 533, 563, 592, 613, 635, 638  
<223> n = A,T,C or G

<400> 27  
actagtccaa cacagtcaga aacattgttt tgaatcctct gtaaaccaag gcattaatct 60  
taataaacca ggatccattt aggtaccact tgatataaaa aggatatcca taatgaatat 120

50070010001





```
<210> 32
<211> 673
<212> DNA
<213> Homo sapiens
```

<220>  
 <221> misc\_feature  
 <222> 376, 545, 627  
 <223> n = A,T,C or G

<400> 32  
 actagtgaag aaaaagaaat tctgatacgg gacaaaaatg ctcttcaaaa catcattctt 60  
 tatcacctga caccaggagt ttctattgga aaaggatttg aacctggtgt tactaacatt 120  
 ttaaagacca cacaaggaag caaaatcttt ctgaaagaag taaatgatac acttctggtg 180  
 aatgaattga aatcaaaaaga atctgacatc atgacaacaa atggtgtaat tcatgttgta 240  
 gataaactcc tctatccagc agacacacct gttggaaatg atcaactgct ggaaatactt 300  
 aataaattaa tcaaatacat ccaaattaag ttgttcctg gtagcacctt caaagaaatc 360  
 cccgtgactg tctatnagcc aattattaaa aaatacacca aaatcattga tgggagtgcc 420  
 tgtgggaaat aactgaaaaa gagaccgaga agaacgaatc attacagggtc ctgaaataaa 480  
 atacctagga tttctactgg aggtggagaa acagaagaac tctgaagaaa ttgttacaag 540  
 aagangtccc aaggtcacca aattcattga aggtggtgat ggtctttatt tgaagatgaa 600  
 gaaattaaaa gacgcttcag ggagacnccc catgaaggaa ttgccagcca caaaaaatt 660  
 cagggattag aaa 673

<210> 33  
 <211> 673  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 325, 419, 452, 532, 538, 542, 571, 600, 616, 651, 653, 672  
 <223> n = A,T,C or G

<400> 33  
 actagtatt tactttcctc cgcttcagaa ggtttttcag actgagagcc taagcatact 60  
 ggatctgttg tttcttttgg gtctcacctc atcagtgtgc atagtggcag aaattataaa 120  
 gaaggttgaa aggagcaggg aaaaagatcca gaagcatgtt agttcgacat catcatcttt 180  
 tcttgaagta tgatgcata tgcattatct tatttgcaaa ctaggaattg cagtctgagg 240  
 atcattttaga agggcaagtt caagaggata tgaagatttg agaacttttt aactattcat 300  
 tgactaaaaa tgaacattaa tgttnaagac ttaagacttt aacctgctgg cagtcccaaa 360  
 tgaaattatg caactttgat atcatattcc ttgattttaa ttgggctttt gtgattgant 420  
 gaaactttat aaagcatatg gtcagttatt tnattaaaaa ggcaaaacct gaaccacctt 480  
 ctgcacttaa agaagtctaa cagtacaaat acctatctat cttagatgga tntatttntt 540  
 tntattttta aatattgtac ttttatggg nggtggggct ttcttactaa tacacaaatn 600  
 aatttatcat ttcaanggca ttctatttgg gtttagaagt tgattccaag nantgcatat 660  
 ttcgctactg tnt 673

<210> 34  
 <211> 684  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 414, 472, 480, 490, 503, 507, 508, 513, 523, 574, 575, 598,  
 659, 662, 675  
 <223> n = A,T,C or G



```

taacctcggg gccaccggat tgccttctt ttcctgttgc ccagcccagc cctagtgtca 180
gggcgggggc ctggagcagc ccgaggcact gcagcagaag ananaaaaga cacgacnaac 240
ctcagctcgc cagtcgggtc gctngcttcc cgccgcatgg caatnagaca gacgccgctc 300
acctgctctg ggcacacgcg acccggtggtt gatttggcct tcagtggcat cacccttatg 360
ggtatttctt aatcagcgct tgcaaagatg gttaacctat gctacgccag ggagatacag 420
gagactggat tggaacattt ttgggtctta aagggtctgt tgggggtgcaa cactgaataa 480
ggatgccacc aaagcagcta cagcagctgc agatttcaca gcccaagtgt gggatgctgt 540
ctcagganat naattgataa cctggctcat aacacattgt caagaatgtg gatttcccca 600
ggatattatt atttgtttac cggggganag gataactgtt tcnctatatt taattgaaca 660
aactnaaaca aanctaagg aatcc 686

```

<210> 37

<211> 681

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 7, 10, 11, 19, 25, 32, 46, 53, 77, 93, 101, 103, 109, 115,  
123, 128, 139, 157, 175, 180, 192, 193, 194, 212, 218, 226,  
227, 233, 240, 241, 259, 260, 267, 289, 296, 297, 298, 312,  
313, 314, 320, 325, 330, 337, 345, 346, 352, 353, 356

<223> n = A,T,C or G

<221> misc\_feature

<222> 382, 385, 400, 427, 481, 484, 485, 491, 505, 515, 533, 542,  
544, 554, 557, 560, 561, 564, 575, 583, 589, 595, 607, 619,  
628, 634, 641, 645, 658, 670

<223> n = A,T,C or G

<400> 37

```

gagacanacn naacgtcang agaanaaaag angcatggaa cacaanccag gcncgatggc 60
caccttccca ccagcancca gcgcccccca gcngccccca ngncggang accangactc 120
cancctgnat caatctganc tctattcctg gcccatncct acctcggagg tggangccgn 180
aaaggctcgca cnnncagaga agctgctgcc ancaccancc gcccnnccc tgnccggctn 240
nataggaaac tggtgaccnn gctgcanaat tcatacagga gcacgcgang ggcacnnnct 300
cacactgagt tnnngatgan gcctnaccan ggacctnccc cagcnnattg annacnggac 360
tgccggaggaa ggaagacccc gnacnggac ctggccggcn tgccaccccc ccacccttag 420
gattatnccc cttgactgag tctctgagg gctacccgaa cccgcctcca ttccctacca 480
natnntgctc natcgggact gacangctgg ggatnggagg ggctatcccc cancatcccc 540
tnanaccaac agcnacngan natnggggct cccnggggtc ggngcaacnc tcctncccc 600
cggcgcnggc cttcgggtnt gtccctcctc aacnaattcc naaanggcgg gccccccngt 660
ggactcctcn ttgttccctc c 681

```

<210> 38

<211> 687

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 3, 30, 132, 151, 203, 226, 228, 233, 252, 264, 279, 306,  
308, 320, 340, 347, 380, 407, 429, 437, 440, 445, 448, 491,  
559, 567, 586, 589, 593, 596, 603, 605, 606, 609, 626, 639,

655, 674, 682

<223> n = A,T,C or G

<400> 38

```

canaaaaaaa aaaacatggc cgaaaccagn aagctgcgcg atggcgccac ggccccctctt 60
ctcccgccct gtgtccgga ggtttccctc cgaggcgccc cggctccgc aagcggagga 120
gagggcgga cntgcccggg ccgagctca naggccctgg ggccgctctg ctctccgcc 180
atcgcaagg cggcgctaac ctnaggcctc cccgcaaagg tcccnange gngggcggcg 240
gggggctgtg anaaccgcaa aaanaacgct gggcgcgcng cgaaccgctc ccccccgcg 300
aaggananac ttccacagan gcagcgtttc cacagccan agccacnttt ctagggtgat 360
gcaccccgat aagttcctgn cggggaagct caccgctgtc aaaaaanctc ttcgctccac 420
cggcgcacna agggggangan ggccanganc tgcgcgccgc acaggtcatc tgatcacgtc 480
gcccgccta ntctgctttt gtgaatctcc actttgttca accccacccg ccgttctctc 540
ctccttgccg cttcctctna ccttaanaac cagcttcctc taccnatng tantnctct 600
gcncnngtng aaattaattc ggtccnccg aacctcttnc ctgtggcaac tgctnaaaga 660
aactgctgtt ctgnttactg cngtccc 687

```

<210> 39

<211> 695

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 300, 401, 423, 429, 431, 437, 443, 448, 454, 466, 492, 515, 523, 524, 536, 538, 541, 552, 561, 566, 581, 583, 619, 635, 636, 641, 649, 661, 694

<223> n = A,T,C or G

<400> 39

```

actagtctgg cctacaatag tgtgattcat gtaggacttc tttcatcaat tcaaaacccc 60
tagaaaaacg tatacagatt atataagtag ggataagatt tctaacattt ctgggctctc 120
tgaccctgc gctagactgt ggaaagggag tattattata gtatacaaca ctgctgttgc 180
cttattagtt ataacatgat aggtgctgaa ttgtgattca caatttaaaa aactgtaat 240
ccaaactttt ttttttaact gtagatcatg catgtgaatg ttaatgttaa tttgttcaan 300
gttggttatgg gtagaaaaaa ccacatgcct taaaatttta aaaagcaggg ccaaactta 360
ttagtttaaa attaggggta tgtttccagt ttgttattaa ntggttatag ctctgtttag 420
aanaaatcna ngaacangat ttngaaantt aagntgacat ttttncag tgacttgta 480
atltgaaatc anacacggca cttccggtt ttgtnctatt ggnntttgaa tccaancngg 540
ntccaaatct tnttggaac ngtcnntta acttttttac nanatcttat ttttttatt 600
tggaatggcc ctatttaang ttaaaagggg ggggnccac naccattcnt gaataaaact 660
naatatatat ctttggtccc ccaaaattta agng 695

```

<210> 40

<211> 674

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 403, 428, 432, 507, 530, 543, 580, 583, 591, 604, 608, 621, 624, 626, 639, 672

<223> n = A,T,C or G

```

<400> 40
actagtagtc agttgggagt ggttgctata ccttgacttc atttatatga atttccactt 60
tattaaataa tagaaaagaa aatcccgggtg cttgcagtag agttatagga cattctatgc 120
ttacagaaaa tatagccatg attgaaatca aatagtaaag gctgttctgg ctttttatct 180
tcttagctca tcttaaataa gtagtacct tgggatgcag tgcgtctgaa gtgctaataca 240
gttgtaacaa tagcacaaat cgaacttagg atgtgtttct tctcttctgt gtttcgattt 300
tgatcaattc ttttaattttg ggaacctata atacagtttt cctattcttg gagataaaaa 360
ttaaatggat cactgatatt taagtcattc tgcttctcat ctnaatattc catattctgt 420
attagganaa antacctccc agcacagccc cctctcaaac cccacccaaa accaagcatt 480
tggaatgagt ctccctttatt tccgaantgt ggatgggtata acccatatcn ctccaatttc 540
tgnttgggtt gggatattaat ttgaactgtg catgaaaagn ggnaatcttt nctttgggtc 600
aaantttncg ggttaatttg nctngncaaa tccaatttnc ttttaagggtg tctttataaa 660
atttgctatt cngg 674

```

```

<210> 41
<211> 657
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 243, 247, 251, 261, 267, 272, 298, 312, 315, 421, 432, 434,
501, 524, 569, 594, 607, 650
<223> n = A,T,C or G

```

```

<400> 41
gaaacatgca agtaccacac actgtttgaa ttttgcacaa aaagtgactg tagggatcag 60
gtgatagccc cggaatgtac agtgtcttgg tgcaccaaga tgccttctaa aggctgacat 120
accttgggac cctaattggg cagagagtat agccctagcc cagtgggtgac atgaccactc 180
cctttgggag gctgaaagtta aagggaatgg tatgtgtttt ctcatggaag cagcacatga 240
atnggtnaca ngatgttaaa ntaaggntct antttgggtg tcttgtcatt tgaaaaaantg 300
acacactcct ancanctggg aaaggggtgc tggaaagccat ggaagaactc taaaaacatt 360
agcatgggct gatctgatta cttcctggca tcccgtcac ttttatggga agtcttatta 420
naaggatggg ananttttcc atatccttgc tggttgaact ctggaacact ctctaattt 480
ccctctatta aaaatcactg nccttactac acttctctct tganggaata gaaatggacc 540
tttctctgac ttagttcttg gcatggganc cagcccaaat taaaatctga cttntccggt 600
ttctcngaa ctcacctact tgaattggta aaacctcctt tggaattagn aaaaacc 657

```

```

<210> 42
<211> 389
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 179, 317, 320
<223> n = A,T,C or G

```

```

<400> 42
actagtgtct aggaatgtaa acaagtttgc tgggccttgc gagacttcac caggttgttt 60
cgatagctca cactcctgca ctgtgcctgt caccaggaa tgtctttttt aattagaaga 120
caggaagaaa acaaaaacca gactgtgtcc cacaatcaga aacctccgtt gtggcagang 180
ggccttcacc gccaccaggg tgtcccgcga gacagggaga gactccagcc ttctgaggcc 240
atcctgaaga attcctgttt ggggggttgtg aaggaaaatc acccggattt aaaaagatgc 300

```

<400> 45							
actagtgtgg	gggaatcacg	gacacttaaa	gtcaatctgc	gaaataattc	ttttattaca	60	
cactcactga	agtttttgag	tcccagagag	ccattctatg	tcaaacattc	caagtactct	120	
ttgagagccc	agcattacat	caacatgcc	gtgcagttca	aaccgaagtc	cgcaggcaaa	180	
tttgaagctt	tgcttgtcat	tcaaacagat	gaaggcaaga	gtattgctat	tcgactaatt	240	
ggtgaagctc	ttggaaaaaa	ttnactagaa	tactttttgt	gttaagttaa	ttacataagt	300	
tgtattttgt	taacttttatc	tttctacact	acaattatgc	ttttgtatat	atattttcta	360	
tgatggatat	ctataattgt	agattttggt	tttacaagct	aatactgaag	actcgactga	420	
aatattattgt	atctagccca	tagtattgta	cttaactttt	acaggggtgaa	aaaaaaaaat	480	



<400>	47						
tgcgngccgg	tttggccctt	ctttgtanga	cactttcatc	cgccctgaaa	tcttcccgat	60	
cgttaataac	tcctcaggtc	cctgcctgca	caggggtttt	tcttantttg	ttgcctaaca	120	
gtacacacaa	tgtgacatcc	tttcaccaat	atngatttnc	tcataccaca	tcntcnatgg	180	
anacgactnc	aacaattttt	tgatnaccn	aaanactggg	ggctnnnana	agtcantctc	240	
ggagcagcat	ggacctgtcn	gcnactaang	gaacaanagt	nntgaacatt	tacacaacct	300	
ttggtatgtc	ttactgaaag	anagaaacat	gcttctnncc	ctagaccacg	aggncaacgg	360	
caganattgc	caatgccaa	tccgagcgg	tagatcaggt	aatacattcc	atggatgcat	420	
tacatacntt	gtccccgaaa	nanaagatgc	cctaanggct	tcttcanact	ggtcnngaaa	480	
acancctacac	cttggcgctt	ganaaacana	tctttggaag	atcatctggc	acaagttccc	540	
ccagctgggt	tttnccttgg	caccttanc	accanactna	ttcgaancc	attccttggc	600	
ntggcnttnt	nttgggacca	ntcttctcac	aactgnacce			640	

<210> 48  
 <211> 257  
 <212> DNA  
 <213> Homo sapiens

<400> 48  
 actagtatat gaaaatgtaa atatcacttg tgtactcaaa caaaagttgg tcttaagctt 60  
 ccaccttgag cagccttgga aacctaacct gcctctttta gcataatcac attttctaaa 120  
 tgattttctt tgttcctgaa aaagtgattt gtattagttt tacatttggt ttttggaga 180  
 ttatatttgt atatgtatca tcataaaata tttaaataaa aagtatcttt agagtgaaaa 240  
 aaaaaaaaaa aaaaaaa 257

<210> 49  
 <211> 652  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 410, 428, 496, 571, 647  
 <223> n = A,T,C or G

<400> 49  
 actagttcag atgagtggtt gctgaagggg ccccttctgc attttcatta taaccaatt 60  
 tccacttatt tgaactctta agtcataaat gtataatgac ttatgaatta gcacagttaa 120  
 gttgacacta gaaactgccc atttctgtat tacactatca aataggaaac attggaaaga 180  
 tggggaaaaa aatcttattt taaaatggct tagaaagttt tcagattact ttgaaaattc 240  
 taaacttctt tctgtttcca aaacttgaaa atatgtagat ggactcatgc attaagactg 300  
 ttttcaaagc tttcctcaca tttttaaagt gtgattttcc ttttaataa catatttatt 360  
 ttctttaaag cagctatata ccaacccatg actttggaga tataacctatn aaaccaatat 420  
 aacagcangg ttattgaagc agctttctca aatgttgctt cagatgtgca agttgcaaat 480  
 tttattgtat ttgtanaata caatttttgt tttaaactgt atttcaatct atttctccaa 540  
 gatgcttttc atatagagtg aaatatocca ngataactgc ttctgtgtcg tcgcatttga 600  
 cgcataactg cacaaatgaa cagtgtatac ctcttggttg tgcattnacc cc 652

<210> 50  
 <211> 650  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 237, 270, 311, 443, 454, 488, 520, 535, 539, 556, 567, 594,  
 603, 634  
 <223> n = A,T,C or G

<400> 50  
 ttgcgctttg attttttttag ggcttgtgcc ctgtttcact tatagggtct agaatgcttg 60  
 tgttgagtaa aaaggagatg cccaatattc aaagctgcta aatgttctct ttgccataaa 120  
 gactccgtgt aactgtgtga acacttgga tttttctcct ctgtcccag gtcgtcgtct 180  
 gctttctttt ttgggttctt tctagaagat tgagaaatgc atatgacagg ctgagancac 240  
 ctccccaac acacaagctc tcagccacan gcagcttctc cacagcccca gcttcgcaca 300  
 ggctcctgga nggctgctg ggggaggcag acatgggagt gccaaggtgg ccagatgggt 360  
 ccaggactac aatgtcttta tttttaactg tttgccactg ctgccctcac ccctgcccg 420

```

ctctggagta ccgtctgccc canacaagtg ggantgaaat ggggggtgggg gggaacactg 480
attcccantt aggggggtgcc taactgaaca gtagggatan aagggtgtgaa cctgngaant 540
gcttttataa attatnttcc ttgttanatt tatttttttaa tttaatctct gttnaactgc 600
ccngggaaaaa ggggaaaaaaa aaaaaaaaaat tctnttttaa cacatgaaca 650

```

```

<210> 51
<211> 545
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 66, 159, 195, 205, 214, 243, 278, 298, 306, 337, 366, 375,
382, 405, 446, 477, 492, 495, 503, 507, 508, 521, 537
<223> n = A,T,C or G

```

```

<400> 51
tggcgtgcaa ccagggtagc tgaagtttgg gtctgggact ggagattggc cattaggcct 60
cctganattc cagctccctt ccaccaagcc cagtcttgct acgtggcaca gggcaaacct 120
gactcccttt gggcctcagt ttccctctcc ctcatgana tgaaaagaat actacttttt 180
cttgttggtc taacnttgct ggacncaaag tgtngtcatt attgttgatg tgggtgatgt 240
gtncaaaact gcagaagctc actgcctatg agaggaanta agagagatag tggatganag 300
ggacanaagg agtcattatt tggatatagat ccaccntcc caacctttct ctcctcagtc 360
cctgcnctc atgtntctgg tntgggtgagt cctttgtgcc accanccatc atgctttgca 420
ttgctgccat cctgggaagg gggtnatcg tctcacaact tgttgtcatc gtttganatg 480
catgctttct tnatnaaaca aanaaannaa tgtttgacag ngtttaaaat aaaaaanaaa 540
caaaa 545

```

```

<210> 52
<211> 678
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 98, 119, 121, 131, 136, 139, 140, 142, 143, 163, 168, 172,
176, 184, 189, 190, 191, 200, 201, 205, 207, 221, 223, 229,
230, 237, 240, 241, 255, 264, 266, 267, 276, 280, 288, 289,
291, 297, 301, 306, 308, 314, 315, 326, 332, 335, 337
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 339, 341, 343, 344, 345, 347, 350, 355, 356, 358, 362, 363,
372, 379, 395, 397, 398, 400, 403, 412, 414, 421, 423, 431,
435, 438, 439, 450, 457, 463, 467, 471, 474, 480, 483, 484,
487, 490, 491, 492, 493, 499, 500, 504, 508, 518, 536
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 538, 549, 551, 552, 554, 556, 557, 562, 563, 567, 571, 572,
576, 579, 590, 592, 595, 598, 606, 609, 613, 620, 622, 624,
626, 631, 634, 638, 641, 647, 654, 660, 661, 674
<223> n = A,T,C or G

```

```

<400> 52
actagtagaa gaactttgcc gcttttgtgc ctctcacagg cgcctaaagt cattgccatg 60
ggaggaagac gatttggggg gggagggggg gggggcangg tccgtggggc tttccctant 120
ntatctccat ntccantgnn cnnrtgtgcc tcttccctcg tcn cattnga anttantccc 180
tggnccccnn nccctctccn nccnncncc ccccccctccg ncnccctccn cttttntan 240
ncttccccat ctccntcccc cctnanngtc ccaacnccgn cagcaatnnc ncaactnctc 300
nctccnccncc tccnnccggt cttctnttct cnaentntnc ncnntnccn tgccnntnaa 360
annctctccc cncgtcaanc gattctctcc ctccnccnnc ctnctcaactc ctncttctc 420
nncgctcct nttcntcnnc ccacctctcn ccttcgnccc cantacnctc nccncccttn 480
cgnntcnttn nnntcctcnn accncccncc tcccttcncc cctcttctcc ccggtntntc 540
tctctccnnc nncnncncc cncnccncc nngcgnccnt tccgccccn cncnccntt 600
ccttctcnc cantccatcn cntntnccat nctnccncc nctcaacccc gctnccccn 660
ntctctttca cacngtcc 678

```

```

<210> 53
<211> 502
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 139, 146, 215, 217, 257, 263, 289, 386, 420, 452, 457, 461,
466, 482, 486
<223> n = A,T,C or G

```

```

<400> 53
tgaagatcct ggtgtcgcca tgggccgcgc cccgcgccgt tgttacgggt attgtaagaa 60
caagccgtac ccaaagtctc gcttctgccg aggtgtccct gatgccaaaa ttgcgatttt 120
tgacctgggg cggaaaaang caaaantgga tgagtctccg ctttgtggcc acatggtgtc 180
agatcaatat gagcagctgt cctctgaagc cctgnangct gcccgattt gtgccaataa 240
gtacatggta aaaagtngtg gcaagatgc ttccatatcc ggggtcggnt ccaccccttc 300
cacgtcatcc gcatcaacaa gatgtgtcc tgtgtgggg ctgacaggct cccaacaggc 360
atgcgaagtg cctttggaaa acccanggca ctgtggccag gggtcacatt gggccaattn 420
atcatgttca tccgcaccaa ctgcagaaca angaactgt naattnaagc cctgcccagg 480
gncaanttca aatttcccg cc 502

```

```

<210> 54
<211> 494
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 431, 442, 445
<223> n = A,T,C or G

```

```

<400> 54
actagtccaa gaaaaatatg cttaatgtat attacaaagg ctttgtatat gttaacctgt 60
tttaatgccaa aaagtittgt ttgtccacaa ttctcttaag acctcttcag aaagggattt 120
gtttgcctta atgaatactg ttgggaaaaa acacagtata atgagtgaag agggcagaag 180
caagaaattt ctacatctta gcgactccaa gaagaatgag tatccacatt tagatggcac 240
attatgagga ctttaactct tccttaaaca caataatgtt ttcttttttc ttttattcac 300
atgatttcta agtatatttt tcatgcagga cagtttttca accttgatgt acagtgactg 360
tgttaaatTT ttctttcagt ggcaacctct ataactttta aaatatggtg agcatcttgt 420

```

```
ctgttttgaa ngggatatga cnatnaatct atcagatggg aaatcctggt tccaagttag 480
aaaaaaaaaa aaaa 494
```

```
<210> 55
<211> 606
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 375, 395, 511, 542, 559, 569, 578, 581
<223> n = A,T,C or G
```

```
<400> 55
actagtaaaa agcagcattg ccaaataatc cctaattttc cactaaaaat ataatgaaat 60
gatgttaagc tttttgaaaa gtttaggtta aacctactgt tgtagatta atgtatttgt 120
tgcttccctt tatctggaat gtggcattag cttttttatt ttaaccctct ttaattctta 180
ttcaattcca tgacttaagg ttggagagct aaacactggg atttttggat aacagactga 240
cagttttgca taattataat cggcattgta catagaaagg atatggctac cttttgttaa 300
atctgcactt tctaaatata aaaaaaggga aatgaagtat aaatcaattt ttgtataatc 360
tgtttgaaac atgantttta ttgcttaat attanggctt tgcccttttc tgtagtctc 420
ttgggacctt gtgtaaaact gttctcatta aacaccaaac agttaagtc attctctggt 480
actagctaca aattccggtt catattctac ntaacaattt aaattaactg aaatatttct 540
anatggtcta cttctgtcnt ataaaaacna aacttgantt nccaaaaaaa aaaaaaaaaa 600
aaaaaa 606
```

```
<210> 56
<211> 183
<212> DNA
<213> Homo sapiens
```

```
<400> 56
actagtatat ttaaaacttac aggcttattt gtaatgtaaa ccaccatttt aatgtactgt 60
aatcaacatg gttataatac gtacaatcct tccctcatcc catcacacaa ctttttttgt 120
gtgtgataaa ctgatttttg ttgcaataa aaccttgaaa aataaaaaaa aaaaaaaaaa 180
aaa 183
```

```
<210> 57
<211> 622
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 358, 368, 412, 414, 425, 430, 453, 455, 469, 475, 495, 499,
529, 540, 564, 575, 590
<223> n = A,T,C or G
```

```
<400> 57
actagtcaact actgtcttct ccttgtagct aatcaatcaa tattcttccc ttgcctgtgg 60
gcagtgagaga gtgtgctggt gtgtacgctg cacctgccca ctgagttggg gaaagaggat 120
aatcagtgag cactgttctg ctcagagctc ctgatctacc ccaccacctt ggatccagga 180
ctgggtcaaaa gctgcatgaa accaggccct ggcagcaacc tgggaatggc tggaggtggg 240
agagaacctg acttctcttt cctctctcct cctccaacat tactggaact ctatcctggt 300
```

CCDS10000.1 Homo sapiens

```

agggatcttc tgagcttggt tccctgctgg gtgggacaga agacaaagga gaagggangg 360
tctacaanaa gcagcccttc tttgtcctct ggggttaatg agcttgacct ananttcattg 420
gaganaccan aagcctctga tttttaattt ccntnaaatg tttgaagtnt atatntacat 480
atatatatatt ctttnaatnt ttgagtcctt gatatgtctt aaaatccant ccctctgccn 540
gaaacctgaa ttaaaacccat gaanaaaaaat gtttncctta aagatgttan taattaattg 600
aaacttgaaa aaaaaaaaaa aa 622

```

```

<210> 58
<211> 433
<212> DNA
<213> Homo sapiens

```

```

<400> 58
gaacaaattc tgattgggta tgtaccgtca aaagacttga agaaatttca tgattttgca 60
gtgtggaagc gttgaaaatt gaaagttact gcttttccac ttgctcatat agtaaaggga 120
tcctttcagc tgccagtgtt gaataatgta tcatccagag tgatgttata tgtgacagtc 180
accagcttta agctgaacca ttttatgaat accaaataaa tagacctctt gtactgaaaa 240
catatttggg actttaatcg tgctgcttgg atagaaatat ttttactggg tcttctgaat 300
tgacagtaaa cctgtccatt atgaatggcc tactgttcta ttatttggtt tgacttgaat 360
ttatccacca aagacttcat ttgtgtatca tcaataaagt tgtatgttcc aactgaaaaa 420
aaaaaaaaaa aaa 433

```

```

<210> 59
<211> 649
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 22, 190, 217, 430, 433, 484, 544, 550, 577, 583, 594
<223> n = A,T,C or G

```

```

<400> 59
actagttatt atctgacttt cnggttataa tcatttctaag gagtgtgaag tagcctctgg 60
tgtcatttgg atttgcatit ctctgatgag tgatgctatc aagcaccttt gctgggtgctg 120
ttggccatat gtgtatgttc cctggagaag tgtctgtgct gagccttggc ccacttttta 180
attaggcgtt tgtcttttta ttactgagtt gtaaganttc tttatatatt ctggattcta 240
gacccttatac agatacatgg tttgcaaata ttttctccca ttctgtgggt tgtgttttca 300
ctttatcgat aatgtcctta gacatataat aaatttgtat tttaaaagtg acttgatttg 360
ggctgtgcaa ggtgggctca cgcttgtaat ccagcactt tgggagactg aggtgggtgg 420
atcatatgan gangctagga gttcgaggtc agcctggcca gcatagcgaa aacttgtctc 480
tacnaaaat acaaaaatta gtcaggcatg gtgggtgcacg tctgtaatac cagcttctca 540
ggangctgan gcacaaggat cacttgaacc ccagaangaa gangttgcag tganctgaag 600
atcatgccag ggcaacaaaa atgagaactt gtttaaaaaa aaaaaaaaaa 649

```

```

<210> 60
<211> 423
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 209, 222, 277, 389, 398
<223> n = A,T,C or G

```

1000700-10001

```
<210> 61
<211> 423
<212> DNA
<213> Homo sapiens
```

```
<400> 61
cgggactgga atgtaaagtg aagttcggag ctctgagcac gggtctttcc cgccgggtcc 60
tccctcccca gacccagag ggagaggccc accccgccc gcccgcccc agcccctgct 120
caggtctgag tatggctggg agtcgggggc cacaggcctc tagctgtgct gctcaagaag 180
actggatcag ggtanctaca agtggccggg ccttgccctt gggattctac cctgttccta 240
at ttgggtgtt ggggtgcggg gtccctggcc cccttttcca cactnccctc ctcngacag 300
caacctccct tggggcaatt gggcctggnt ctccncccg tgttgcnacc ctttgttggt 360
taaaagnctt taaaaatgtt annttttccc ntggcnnggt taaaaaagga aaaaactnaa 420
taa                                     423
```

```
<210> 62
<211> 683
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 218, 291, 305, 411, 416, 441, 443, 453, 522, 523, 536, 542,
547, 566, 588, 592, 595, 603, 621, 628, 630, 632, 644, 645,
648, 655, 660, 672, 674, 676, 677, 683
<223> n = A,T,C or G
```

<400> 62						
gctggagagg	ggtacggact	ttcttgaggt	tgtcccgagt	tggaatgaga	ctgaactcaa	60
gaagagaccc	taagagactg	gggaatggtt	cctgccttca	ggaaagtga	agacgcttag	120
gctgtcaaca	cttaaaggaa	gtccccttga	agccagaggt	ggacagacta	gacccattga	180
tggggccact	ggccatggtc	cgtggacaag	acattccngt	gggccatggc	acaccggggg	240
ggatcaaaat	gtgtacttgt	ggggtctcgc	cccttgccaa	aaccaaacca	ntccactcc	300
tgtcnttgga	ctttcttccc	attccctcct	ccccaaatgc	acttccctct	ctccctctgc	360
ccctcctgtg	tttttggaat	tctgtttccc	tcaaaattgt	taatttttta	ntttngacc	420
atgaacttat	gtttggggtc	ngattcccc	ttnccaatgc	atactaatat	attaatggtt	480
atttattttt	gaaatatttt	ttaatqaact	tqaaaaaatc	tnntgqaatt	tccttncttc	540

```

cnttttnttt ggggggggtg gggggntggg ttaaaatttt tttggaancc cnatnggaaa 600
ttnttacttg gggcccccct naaaaaantn anttccaatt cttnnatngc ccctnttccn 660
ctaaaaaaaa ananannaaa aan                                           683

```

```

<210> 63
<211> 731
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 237, 249, 263, 288, 312, 317, 323, 326, 337, 352, 362, 370,
377, 400, 411, 414, 434, 436, 446, 457, 473, 486, 497, 498,
502, 512, 531, 546, 554, 563, 565, 566, 588, 597, 608, 611,
613, 615, 627, 632, 640, 641, 644, 654, 660, 663, 665
<223> n = A,T,C or G

```

```

<221> misc_feature
<222> 671, 678, 692, 697, 698, 699, 704, 705, 712, 714, 717, 718,
719, 723, 725, 730, 731
<223> n = A,T,C or G

```

```

<400> 63
actagtcata aaggggtgtg gcgtcttcga cgtggcggtc ttggcgccac tgctgcgaga 60
cccggccctg gacctcaagg tcattccactt ggtgcgtgat ccccgcgcgg tggcgagttc 120
acggatccgc tcgcgccacg gcctcatccg tgagagccta caggtggtgc gcagccgaga 180
ccgcgagctc accgcatgcc cttcttgag gccgcgggcc acaagcttgg cgcccaaaa 240
gaagggcgtng ggggcccgcg aantaccacg ctctgggcgc tatggaangt cctcttgcaa 300
taatatgtgt tnaaaanctg canaanagcc cctgcancct cctgaactgg gntgcagggc 360
cncttacctn gtttggtg gcgttacaag aacctgtttn ggaaaaccct nccnaaaacc 420
ttccgggaaa attntncaaa ttttnttgg ggaattnttg ggtaaacccc ccnaaaatgg 480
gaaacntttt tgccctnnaa antaaaccat tnggttccgg gggccccccc ncaaaaccct 540
ttttnttttt tttntgccc cantnncccc ccggggcccc ttttttngg ggaaaanccc 600
ccccctncc nanantttta aaagggnggg anaatttttn nttncceccc gggncceccn 660
ggngntaaaa nggtttcncc cccccgagg gnggggnnc ctcnnaaacc cntntcnna 720
ccncttttn n                                                         731

```

```

<210> 64
<211> 313
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 240
<223> n = A,T,C or G

```

```

<400> 64
actagttgtg caaaccacga ctgaagaaag acgaaaagtg ggaaataact tgcaacgtct 60
gttagagatg gttgctacac atgttgggtc tgtagagaaa catcttgagg agcagattgc 120
taaagttgat agagaatatg aagaatgcat gtcagaagat ctctcgaaa atattaaaga 180
gattagagat aagtatgaga agaaagctac tctaattaag tcttctgaag aatgaagatn 240
aaatgttgat catgtatata tatccatagt gaataaaatt gtctcagtaa agttgtaaaa 300
aaaaaaaaaaa aaa                                                         313

```

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<210> 65  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 400, 402, 403, 404, 405, 406, 409, 411, 412, 414, 415, 416  
 <223> n = A,T,C or G

<400> 65  
 actagttccc tggcaggcaa gggcttccaa ctgaggcagt gcatgtgtgg cagagagagg 60  
 caggaagctg gcagtggcag cttctgtgtc tagggagggg tgtggctccc tccttccctg 120  
 tctgggaggt tggagggaag aatctaggcc ttagcttgcc ctccctgccac ccttcccctt 180  
 gtagatactg ccttaacact cctcctcttc tcagctgtgg ctgccaccca agccagggtt 240  
 ctccgtgttc actaatttat ttccaggaaa ggtgtgtgga agacatgagc cgtgtataat 300  
 atttgtttta acattttcat tgcaagtatt gaccatcatc cttggttgtg tatcgttgta 360  
 acacaaatta atgatattaa aaagcatcca aacaaagccn annnnnaana nnannngaaa 420

<210> 66  
 <211> 676  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 328, 454, 505, 555, 586, 612, 636, 641  
 <223> n = A,T,C or G

<400> 66  
 actagtttcc tatgatcatt aaactcattc tcagggttaa gaaaggaatg taaattttctg 60  
 cctcaatttg tacttcatca ataagttttt gaagagtgca gatttttagt caggtcttaa 120  
 aaataaactc acaaactctg atgcatttct aaattctgca aatgtttcct ggggtgactt 180  
 aacaaggaat aatcccacaa tatacctagc tacctaatac atggagctgg ggctcaaccc 240  
 actgttttta aggatttgcg cttacttgtg gctgaggaaa aataagtagt tccgagggaa 300  
 gtagttttta aatgtgagct tatagatngg aaacagaata tcaacttaat tatggaaatt 360  
 gttagaaacc tgttctcttg ttatctgaat cttgattgca attactattg tactggatag 420  
 actccagccc attgcaaagt ctgagatc ttanctgtgt agttgaattc cttggaaatt 480  
 ctttttaaga aaaaattgga gtttnaaaga aataaaccct tttgttaaat gaagcttggc 540  
 tttttggtga aaaanaatca tccgcagggt cttattgttt aaaaanggaa ttttaagcct 600  
 ccctggaaaa anttgtaaat taaatgggga aaatgntggg naaaaattat ccgttagggg 660  
 ttaaagggaa aactta 676

<210> 67  
 <211> 620  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 419, 493, 519, 568, 605, 610  
 <223> n = A,T,C or G

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Figure 1: A schematic diagram of a 1D chain of  $N$  particles. The chain is represented by a horizontal line with  $N$  particles, each labeled with a number from 1 to  $N$ . The particles are connected by springs. The chain is divided into two regions by a vertical dashed line. The left region contains particles 1 to  $N/2$ , and the right region contains particles  $N/2+1$  to  $N$ . The particles are labeled with their respective numbers. The chain is shown in a state of equilibrium, with the particles arranged in a regular lattice. The diagram is labeled "Figure 1" at the bottom.

```
<220>
<221> misc_feature
<222> 286, 464, 480, 501, 502, 518, 528, 533, 536, 537, 538, 539,
540, 541, 543, 544, 545, 547, 548, 549
<223> n = A,T,C or G
```

```
<210> 69
<211> 396
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 235, 310, 323, 381  
<223> n = A,T,C or G
```

<400> 69						60
cagaaatgga	aagcagagtt	ttcattttctg	tttataaacg	tctccaaaca	aaaatggaaa	120
gcagagtttt	cattaaatcc	ttttaccttt	tttttttctt	ggtaatcccc	tcaaataaca	180
gtatgtggga	tattgaatgt	taaaagggata	tttttttcta	ttatttttat	aattgtacaa	240
aattaagcaa	atgttaaaag	ttttatatgc	tttattaatg	ttttcaaaag	gtatnatata	300
tgtgatacat	tttttaagct	tcagttgctt	gtcttctggg	actttctggt	atgggctttt	360
ggggagccan	aaaccaatct	acnatctctt	tttgtttgcc	aggacatgca	ataaaaattta	

aaaaataaat aaaaactatt nagaattga aaaaaa

396

<210> 70  
 <211> 536  
 <212> DNA  
 <213> Homo sapiens  
 <220>  
 <221> misc\_feature  
 <222> 388, 446, 455  
 <223> n = A,T,C or G

<400> 70  
 actagtgcaa aagcaaatat aaacatcgaa aaggcggtcc tcacgttagc tgaagatatc 60  
 cttcgaaaga cccctgtaaa agagcccaac agtgaaaatg tagatatcag cagtggagga 120  
 ggcgtgacag gctggaagag caaatgctgc tgagcattct cctgttccat cagttgccat 180  
 ccactacccc gttttctctt cttgctgcaa aataaaccac tctgtccatt tttaactcta 240  
 aacagatat tttgtttctc atcttaacta tccaagccac ctattttatt tgttctttca 300  
 tctgtgactg cttgctgact ttatcataat tttcttcaaa caaaaaaatg tatagaaaaa 360  
 tcatgtctgt gacttcattt ttaaagtnta cttgctcagc tcaactgcat ttcagttggt 420  
 ttatagtcca gttcttatca acattnaaac ctatngcaat catttcaaat ctattctgca 480  
 aattgtataa gaataaaagt tagaatttaa caattaaaaa aaaaaaaaaa aaaaaa 536

<210> 71  
 <211> 865  
 <212> DNA  
 <213> Homo sapiens  
 <220>  
 <221> misc\_feature  
 <222> 22, 35, 39, 56, 131, 138, 146, 183, 194, 197, 238, 269, 277,  
 282, 297, 316, 331, 336, 340, 341, 346, 349, 370, 376, 381,  
 382, 392, 396, 397, 401, 433, 444, 445, 454, 455, 469, 472,  
 477, 480, 482, 489, 497, 499, 511, 522, 526, 527  
 <223> n = A,T,C or G

<221> misc\_feature  
 <222> 545, 553, 556, 567, 574, 580, 610, 613, 634, 638, 639, 663,  
 672, 689, 693, 694, 701, 704, 713, 723, 729, 732, 743, 744,  
 749, 761, 765, 767, 769, 772, 774, 780, 783, 788, 792, 803,  
 810, 824, 840, 848  
 <223> n = A,T,C or G

<400> 71  
 gacaaaagcgt taggagaaga anagaggcag ggaanactnc ccaggcacga tggccncctt 60  
 cccaccagca accagcgccc cccaccagcc cccaggcccg gacgacgaag actccatcct 120  
 ggattaatct nacctctntc gcctgnccca ttcctacctc ggaggtggag gccggaag 180  
 tcncaccaag aganaantc ctgccaacac caaccgcccc agccctggcg ggcacganag 240  
 gaaactgggt accaatctgc agaattctna gaggaanaag cnaggggccc cgcgctnaga 300  
 cagagctgga tatgangcca gaccatggac nctacnccn ncaatncana cgggactgcg 360  
 gaagatggan gaccncgac nngatcaggc cngctnncca nccccccacc cctatgaatt 420  
 attcccgcgt aangaatctc tganngcctt ccannaaagc gcctcccnc cnaacgnaan 480  
 tncaacatng ggattanang ctgggaactg naaggggcaa ancctnnaat atccccagaa 540  
 acaantctc ccnaanaaac tggggcncct catnggtggn accaactatt aactaaaccg 600

```

cacgccaagn aantataaaa ggggggcccc tccncggngg accccctttt gtcccttaat 660
ganggttatc cnccttgctg accatgggtnc ccnnttctgt ntgnatgttt ccnctcccct 720
ccnctatnt cnagccgaac tcnnatttnc ccgggggtgc nactnantng tncnctttt 780
ttngttgncc cngccctttc cgnccgaacn cgtttccccg ttantaacgg caccgggggn 840
aagggtgntt ggccccctcc ctccc 865

```

<210> 72

<211> 560

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 83, 173, 183, 186, 209, 211, 215, 255, 321, 322, 323, 335,  
344, 357, 361, 368, 394, 412, 415, 442, 455, 469, 472, 475,  
487, 513, 522, 528, 531, 534, 546

<223> n = A,T,C or G

<400> 72

```

cctggaacttg tcttggttcc agaacctgac gaccggcgca cggcgacgtc tcttttgact 60
aaaagacagt gtccagtgtc ccngcctagg agtctacggg gaccgcctcc cgcgcgcca 120
ccatgcccac cttctctggc aactggaaaa tcatccgatc ggaaaacttc gangaattgc 180
tcnaantgct ggggggtgaat gtgatgctna ngaanattgc tgtggctgca gcgtccaagc 240
cagcagtgga gatcnaacag gagggagaca ctttctacat caaaacctcc accaccgtgc 300
gcaccacaaa gattaacttc nnggttgggg aggantttga ggancaaaact gtggatngga 360
ngcctgtnaa aacctggtga aatgggagaa tganaataaa atggtctgtg ancanaaact 420
cctgaaagga gaaggccccc anaactcctg gaccngaaaa actgaccnc cnatngggga 480
actgatnctt gaacctgaa cgggcgggat gancctttt tnttgcnc naangggttc 540
tttcnntttc ccaaaaaaa 560

```

<210> 73

<211> 379

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 8, 17, 18, 21, 26, 29, 30, 32, 53, 56, 67, 71, 81, 102, 104,  
111, 112, 114, 119, 122, 124, 125, 134, 144, 146, 189, 190,  
214, 215, 219, 220, 235, 237, 246, 280, 288, 302, 310, 313,  
319, 322, 343, 353, 354

<223> n = A,T,C or G

<400> 73

```

ctggggancc ggcggtngc nccatntcnn gncgcgaagg tggcaataaa aanccnctga 60
aaccgcncac naaacatgcc naagatatgg acgaggaaga tngngctttc nngnacaanc 120
gnannaggga acanaacaaa ctcnangagc tctcaagcta atgccgcggg gaagggggccc 180
ttggccacnn gtggaattaa gaaatctggc aaanngtann tggttcctgt gcctnangag 240
ataagngacc ctttatttca tctgtattta aacctctctn ttccctgnca taacttcttt 300
tnccacgtan agntggaant anttggtgtc ttggactgtt gtncatttta gannaaactt 360
ttgttcaaaa aaaaaataa 379

```

<210> 74

<211> 437

<212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 145, 355  
 <223> n = A,T,C or G

<400> 74  
 actagttcag actgccacgc caacccacaga aaatacccca catgccagaa aagtgaagtc 60  
 ctaggtgttt ccatctatgt ttcaatctgt ccatctacca ggcctcgcga taaaaacaaa 120  
 acaaaaaaac gctgccagggt tttanaagca gttctgtgtct caaaaccatc aggatcctgc 180  
 caccagggtt cttttgaaat agtaccacat gtaaaaggga atttggtctt cacttcatct 240  
 aatcactgaa ttgtcaggct ttgattgata attgtagaaa taagtagcct tctgttgtgg 300  
 gaataagtta taatcagtat tcatctcttt gttttttgtc actcttttct ctctnattgt 360  
 gtcatttgta ctgtttgaaa aatatttctt ctataaaatt aaactaacct gccttaaaaa 420  
 aaaaaaaaaa aaaaaaa 437

<210> 75  
 <211> 579  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 440, 513, 539, 551  
 <223> n = A,T,C or G

<400> 75  
 ctccgtcgcc gccaaagatga tgtgcggggc gccctccgcc acgcagccgg ccaccgccga 60  
 gaccagcac atcgccgacc aggtgagggtc ccagcttgaa gagaaagaaa acaagaagtt 120  
 ccctgtgttt aaggccgtgt cattcaagag ccagggtgtc gcggggacaa actacttcat 180  
 caaggtgcac gtcggcgacg aggacttcgt acacctgcga gtgttccaat ctctccctca 240  
 tgaaaaaag cccttgacct tatctaacta ccagaccaac aaagccaagc atgatgagct 300  
 gacctatttc tgatcctgac ttgggacaag gcccttcagc cagaagactg acaaagtcat 360  
 cctccgtcta ccagagcgtg cacttgtgat cctaaaataa gcttcatctc cgggctgtgc 420  
 ccttggggtg gaaggggcan gatctgcact gcttttgcat ttctcttctt aaatttcatt 480  
 gtgttgattc tttccttcca ataggtgatc ttnattactt tcagaatatt ttccaaatna 540  
 gatatatattt naaaatcctt aaaaaaaaaa aaaaaaaaaa 579

<210> 76  
 <211> 666  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 411, 470, 476, 491, 506, 527, 560, 570, 632, 636, 643, 650,  
 654, 658  
 <223> n = A,T,C or G

<400> 76  
 gtttatccta tctctccaac cagattgtca gctccttgag ggcaagagcc acagtatatt 60  
 tcctgttttc ttccacagtg cctaataata ctgtggaact aggttttaata aattttttaa 120

```

ttgatgttgt tatgggcagg atggcaacca gaccattgtc tcagagcagg tgctggctct 180
ttcctggcta ctccatgttg gctagcctct ggtaacctct tacttattat cttcaggaca 240
ctcactacag ggaccaggga tgatgcaaca tccttgtctt tttatgacag gatgtttgct 300
cagcttctcc aacaataaaa agcacgtggt aaaacacttg cggatattct ggactgtttt 360
taaaaaatat acagtttacc gaaaatcata ttatcttaca atgaaaagga ntttatagat 420
cagccagtga acaacctttt cccaccatac aaaaattcct tttcccgaan gaaaanggct 480
ttctcaataa ncctcacttt cttaanatct tacaagatag ccccganac ttatcgaaac 540
tcatttttagg caaatatgan ttttattgtn cgttacttgt ttcaaaattt ggtattgtga 600
atatcaatta ccaccccat ctcccatgaa anaaanggga aanggtgaan ttcntaancg 660
cttaaa

```

<210> 77

<211> 396

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 31, 54, 125, 128, 136, 163, 168, 198

<223> n = A,T,C or G

<400> 77

```

ctgcagcccg ggggatccac taatctacca nggttatttg gcagctaatt ctanatttgg 60
atcattgccc aaagttgcac ttgctggctc cttgggattt ggccttgga aggtatcata 120
catanganta tgccanaata aattccattt ttttgaaaat canctccntg gggctggttt 180
tggtccacag cataacangc actgcctcct tacctgtgag gaatgcaaaa taaagcatgg 240
attaagtgag aaggagact ctcagccttc agcttcctaa attctgtgtc tgtgactttc 300
gaagtttttt aaacctctga atttgtacac atttaaaatt tcaagtgtac tttaaaataa 360
aatacttcta atgggaacaa aaaaaaaaaa aaaaaa

```

<210> 78

<211> 793

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 309, 492, 563, 657, 660, 703, 708, 710, 711, 732, 740, 748, 758, 762, 765, 787

<223> n = A,T,C or G

<400> 78

```

gcacccctagc cgccgactca cacaaggcag gtgggtgagg aaatccagag ttgccatgga 60
gaaaattcca gtgtcagcat tcttgtcctc tgtggccctc tctacactc tggccagaga 120
taccacagtc aaacctggag ccaaaaagga cacaaggac tctcgacca aactgcccc 180
gacctctccc agaggttggg gtgaccaact catctggact cagacatatg aagaagctct 240
atataaatcc aagacaagca acaaaccctt gatgattatt catcacttgg atgagtgtccc 300
acacagtcna gctttaaaga aagtgtttgc tgaaaataaa gaaatccaga aattggcaga 360
gcagtttgtc ctccctcaatc tggtttatga aacaactgac aaacaccttt ctcctgatgg 420
ccagtatgtc ccaggattat gtttgttgac ccatctctga cagttgaagc cgatatcctg 480
ggaagatatt cnaaccgtct ctatgcttac aaactgcaga tacgctctgt tgcttgacac 540
atgaaaagc tctcaagttg ctnaaaatga attgtaagaa aaaaaatctc cagccttctg 600
tctgtcggct tgaaaattga aaccagaaaa atgtgaaaaa tggctattgt ggaacanatn 660
gacacctgat taggttttgg ttatgttcac cactattttt aanaaaanan nttttaaaat 720

```

```
<210> 79
<211> 456
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 89, 195, 255, 263, 266, 286, 353, 384, 423, 425, 436, 441
<223> n = A,T,C or G
```

<400>	79								
actagtatgg	ggtgggaggc	cccacccttc	tcccctaggc	gctgttcttg	ctccaaaggg	60			
ctccgtggag	agggactggc	agagctgang	ccacctgggg	ctggggatcc	cactcttctt	120			
gcagctgttg	agcgcaccta	accactggtc	atgcccccac	ccttgccttc	cgcacccgct	180			
tcctcccgac	cccangacca	ggctacttct	ccctcctctt	tgctcctctc	ctgcccctgc	240			
tgctctctgat	cgtangaatt	gangantgtc	ccgccttgtg	gctganaaat	gacagtgcca	300			
ggggctggaa	atgggtgtgt	gtgtgtgtgt	gtgtgtgtgt	gtgtgtgtgt	gcnccccccc	360			
tgcgaagacc	agattgaggg	aaancatgtc	tgtgtgggtg	gaccatgttt	cctctccata	420			
aantncccc	gtqacnctca	naaaaaaaaa	aaaaaa			456			

```
<210> 80
<211> 284
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 283  
<223> n = A,T,C or G
```

```
<400> 80
ctttgtacct ctagaaaaga taggtattgt gtcatgaaac ttgagtttaa attttatata 60
taaaactaaa agtaatgctc acttttagcaa cacatactaa aattggaacc atactgagaa 120
gaatagcatg acctccgtgc aaacaggaca agcaaatttg tgatgtgttg attaaaaaga 180
aataaataaaa tgtgtatatg tgtaacttgt atgtttatgt ggaatacaga ttgggaaata 240
aaatgtattt cttactgtga aaaaaaaaaa aaaaaaaaaa aana 284
```

```
<210> 81
<211> 671
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 388, 505, 600, 603, 615, 642, 644, 660  
<223> n = A,T,C or G
```

```
<400> 81
gccaccaaca ttccaagcta ccctgggtac ctttgtgcag tagaagctag tgagcatgtg 60
agcaagcggg gtgcacacgg agactcatcg ttataattta ctatctgcc aagagtagaaa 120
gaaaggctgg qgatatttgg qttggcttgg ttttgatttt ttgcttgttt gtttgttttg 180
```

```
tactaaaaca gtattatctt ttgaatatcg tagggacata agtatataca tgttatccaa 240
tcaagatggc tagaatgggt cctttctgag tgtctaaaac ttgacacccc tggtaaatct 300
ttcaacacac ttccactgcc tgcgtaatga agttttgatt cttttttaac cactggaatt 360
tttcaatgcc gtcattttca gttagatnat ttgacacttt gagattaaaa tgccatgtct 420
atgtgattag tcttattttt ttattttttac aggcattatca gtctcactgt tggctgtcat 480
tgtgacaaag tcaataaaac ccccnaggac aacacacagt atgggatcac atattgtttg 540
acattaagct ttggccaaaa aatggtgcat gtgttttacc tcgacttgct aaatcaatan 600
canaaaggct ggctnataat gttggtggtg aaataattaa tnantaacca aaaaaaaaaa 660
aaaaaaaaa a 671
```

```
<210> 82
<211> 217
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 35
<223> n = A,T,C or G
```

```
<400> 82
ctgcagatgt ttcttgaatg ctttgtcaaa ttaanaaagt taaagtgcaa taatgtttga 60
agacaataag tgggtggtga tcttggttct aataagataa acttttttgt ctttgcttta 120
tcttattagg gagtgtatg tcagtgtata aaacatactg tgtggtataa caggcttaat 180
aaattcttta aaaggaaaaa aaaaaaaaaa aaaaaaa 217
```

```
<210> 83
<211> 460
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 104, 118, 172, 401, 422, 423, 444, 449
<223> n = A,T,C or G
```

```
<400> 83
cgcgagtggg agcaccagga tctcgggctc ggaacgagac tgcacggatt gttttaagaa 60
aatggcagac aaaccagaca tgggggaaat cgccagcttc gatnaggcca agctgaanaa 120
aacggagacg caggagaaga acacctgcc gaccaaagag accattgagc angagaagcg 180
gagtgaatt tcctaagatc ctggaggatt tcctaccccc gtcctcttcg agacccagc 240
cgtgatgtgg aggaagagcc acctgcaaga tggacacgag ccacaagctg cactgtgaac 300
ctgggcactc cgcgccgatg ccaccggcct gtgggtctct gaagggaccc cccccaatcg 360
gactgccaaa ttctccggtt tgccccggga tattatacaa nattatttgt atgaataatg 420
annataaaac acacctcgtg gcancaana aaaaaaaaaa 460
```

```
<210> 84
<211> 323
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 70, 138, 178, 197, 228, 242, 244, 287, 311
```

100700-13001



```
<400> 86
actagtttgc tttacatttt tgaaaagtat tatttttgtc caagtgtcta tcaactaaac 60
cttggtgtag gtaagaatgg aattttattaa gtgaatcagt gtgacccttc ttgtcataag 120
attatcttaa agctgaagcc aaaatatgct tcaaaagaaa angactttat tgttcattgt 180
agttcataca ttcaaacgat ctgaactgta gtttctatag caagccaatt acatccataa 240
gtggagaang aatatagatta atgtcnaagt atgtgtggtg gagggaagcaa ggttgaaagt 300
aatctgqqgt tgaatttttc tagttttcat tctgtacatt tttagttnga catcagaatt 360
```

```

gaaatattaa tgtttacctt tcaatgtgtg gtatcagctg gactcantaa caccctttc 420
ttccctnggg gatggggaat ggattatttg aaaatggaaa gaaaaaagta cttaaagcct 480
tcctttcnca gtttctggct cctaccctac tgatttancc agaataagaa aacattttat 540
catcntctgc tttattccca ttaatnaant tttgatgaat aaatctgctt ttatgcnnac 600
ccaaggaatt nagtggnttc ntcnttgt 628

```

```

<210> 87
<211> 518
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 384, 421, 486
<223> n = A,T,C or G

```

```

<400> 87
ttttttattt tttttagaga gtagttcagc ttttatttat aaattttattg cctgttttat 60
tataacaaca ttatactgtt tatggtttaa tacatatggt tcaaaatgta taatacatca 120
agtagtacag ttttaaaatt ttatgcttaa aacaagtttt gtgtaaaaaa tgcagataca 180
ttttacatgg caaatcaatt ttttaagtcac cctaaaaatt gatttttttt tgaaatttaa 240
aaacacattt aattttcaatt tctctcttat ataaccttta ttactatagc atggtttcca 300
ctacagttta acaatgcagc aaaattccca tttcacggta aattgggttt taagcggcaa 360
ggttaaaatg ctttgaggat cctnaatacc ctttgaaactt caaatgaagg ttatggttgt 420
naatttaacc ctcatgccat aagcagaagc acaagtttag ctgcattttg ctctaaactg 480
taaaancgag ccccccggtg aaaaagcaaa agggaccc 518

```

```

<210> 88
<211> 1844
<212> DNA
<213> Homo sapiens

```

```

<400> 88
gagacagtga atcctagtat caaaggattt ttggcctcag aaaaagttgt tgattatttt 60
tattttattt tatttttcga gactccgtct caaaaaaaaa aaaaaaaaaa agaatcacia 120
ggtatttgct aaagcatttt gagctgcttg gaaaaaggga agtagttgca gtagagtttc 180
ttccatcttc ttggtgctgg gaagccatat atgtgtcttt tactcaagct aaggggtata 240
agcttatgtg ttgaatttgc tacatctata tttcacatat tctcacaata agagaatttt 300
gaaatagaaa tatcatagaa catttaagaa agtttagtat aaataatatt ttgtgtgttt 360
taatcccttt gaagggatct atccaaagaa aatattttac actgagctcc ttcctacacg 420
tctcagtaac agatcctgtg ttagtctttg aaaatagctc atttttttaa tgtcagttag 480
tagatgtagc atacatatga tgtataatga cgtgtattat gttacaatg tctgcagatt 540
ttgtaggaat acaaaacatg gcctttttta taagcaaaac gggccaatga ctagaataac 600
acatagggca atctgtgaat atgtattata agcagattc cagaaaagta gttggtgaaa 660
taattttcaa gtcaaaaagg gatatggaaa ggaattatg agtaacctct attttttaag 720
ccttgctttt aaattaaacg ctacagccat ttaagccttg aggataataa agcttgagag 780
taataatggt aggttagcaa aggttttagat gtatcacttc atgcatgcta ccatgatagt 840
aatgcagctc ttcgagtcac ttctggtcac tcaagatatt cacccttttg cccatagaaa 900
gcaccctacc tcacctgctt actgacattg tcttagctga tcacaagatc attatcagcc 960
tccattattc cttactgtat ataaaataca gaggttttata ttttcctttc ttcgtttttc 1020
accatattca aaacctaaat ttgtttttgc agatggaatg caaagtaatc aagtgttcgt 1080
gctttcacct agaagggtgt ggtcctgaag gaaagaggtc cctaaatatc cccaccctg 1140
ggtgctctc ctccctggt accctgacta ccagaagtca ggtgctagag cagctggaga 1200
agtgcagcag cctgtgcttc cacagatggg ggtgctgctg caacaaggct ttcaatgtgc 1260

```

ccatcttagg	gggagaagct	agatcctgtg	cagcagcctg	gtaagtcctg	aggagggttc	1320
attgctcttc	ctgctgctgt	cctttgcttc	tcaacggggc	tcgctctaca	gtctagagca	1380
catgcagcta	acttgtgcct	ctgcttatgc	atgagggtta	aattaacaac	cataaccttc	1440
atttgaagtt	caaaggtgta	ttcaggatcc	tcaaagcatt	ttaaccttgc	cgcttaaaac	1500
ccaatttacc	gtgaaatggg	aattttgctg	cattgttaaa	ctgtagtgga	aacctatgcta	1560
tagtaataaa	ggttatataa	gagagaaatt	gaaattaaat	gtgttttttaa	atttcaaaaa	1620
aaaatcaatc	tttaggatga	cttaaaaaatt	gattttgccat	gtaaaattga	tctgcatttt	1680
ttacacaaaa	cttgtttttaa	gcataaaatt	ttaaactgt	actacttgat	gtattatata	1740
ttttgaacca	tatgtattaa	accataaaca	gtataatgtt	gttataataa	aacaggcaat	1800
aaattttataa	ataaaagctg	aaaaaaaaaa	aaaaaaaaaa	aaaa		1844

```
<210> 89
<211> 523
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 288, 352, 369, 398, 475, 511, 513
<223> n = A,T,C or G
```

<400> 89						
tttttttttt	tttttttagt	caatccacat	ttattgatca	cttattatgt	accaggcact	60
gggataaaga	tgactgttag	tcactcacag	taaggaagaa	aactagcaa	taagacgatt	120
acaatatgat	gtagaaaatg	ctaagccaga	gatatagaaa	ggtcctattg	ggtccttctg	180
tcaccttgtc	tttccacatc	cctacccttc	acaggccttc	cctccagctt	cctgcccccg	240
ctccccactg	cagatccctt	gggattttgc	ctagagctaa	acgagganat	gggccccctg	300
gccctggcat	gacttgaacc	caaccacaga	ctgggaaatg	gagcctttcg	anagtggatc	360
actttgatna	aaaaacacat	aggaattga	agagaaantc	cccaaattgc	caccctgtct	420
ggtgctcaag	aaaagtgttc	agaattggata	aatgaaggat	caagggaatt	aatanaatgaa	480
taattgaatg	gtggctcaat	aagaatgact	ncnttgaatg	acc		523

```
<210> 90
<211> 604
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 563  
<223> n = A,T,C or G
```

<400> 90						
ccagtgtggt	ggaatgcaaa	gattaccccg	gaagctttcg	agaagctggg	attccctgca	60
gcaaaggaaa	tagccaatat	gtgtcgtttc	tatgaaatga	agccagaccg	agatgtcaat	120
ctcaccacc	aactaaatgc	caaagctcaa	agcttcagcg	agtttatctc	agagaaccag	180
gggagccttc	aagggatctt	agaaaatcag	ctgttcagat	agggctctgc	accacacagc	240
ctcttctctc	cttgatcctt	ttctctttta	cggcacaca	ttcatgtttg	acagaaatcg	300
ctggaatgca	attgtttgca	acaccgaagg	atttcctgcg	gtcgccctct	cagtaggaag	360
cactgcattg	gtgataggac	acggtaattt	gattcacatt	taacttgcta	gttagtgata	420
aggggtggta	caactgtttg	gtaaaatgag	aagcctcgga	aacttgggag	cttctctcct	480
accctaattg	gggagggcag	attattactg	ggattttctc	tggggtgaat	taatttcaag	540
ccctaattgc	tgaaattccc	ctnggcaggc	tccagttttc	tcaactgcat	tgcaaaattc	600
cccc						604

<210> 93  
<211> 567

<212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 82, 158, 230, 232, 253, 266, 267, 268, 269, 270, 271, 272,  
 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284,  
 285, 286, 287, 295, 303, 307, 314, 349, 352, 354, 356, 366,  
 369, 379, 382, 386, 393, 404, 427, 428, 446, 450, 452  
 <223> n = A,T,C or G

<221> misc\_feature  
 <222> 453, 454, 459, 462, 480, 481, 483, 488, 493, 501, 509, 511,  
 512, 518, 520, 525, 526, 532, 541, 557  
 <223> n = A,T,C or G

<400> 93  
 cggcagtgtt gctgtctgcg tgtccacctt ggaatctggc tgaactggct gggaggacca 60  
 agactgcggc tggggtgggc anggaaggga accgggggct gctgtgaagg atcttggaac 120  
 ttccctgtac ccaccttccc ctgtcttcat gtttgtanag gaaccttgtg ccggccaagc 180  
 ccagtttcct tgtgtgatac actaatgtat ttgctttttt tgggaaatan anaaaaatca 240  
 attaaattgc tantgtttct ttgaannnnn nnnnnnnnnn nnnnnnnggg ggggncgccc 300  
 ccnccgngga aacnccccct ttgtttccct ttaattgaaa ggttaattng cncncttggc 360  
 gttaancntt gggccaaanc tngttncceg tgntgaaatt gttnatcccc tcccaaattc 420  
 cccccnnc tcccaaaccg gaaancctn annntgttna ancccggggg gttgcctaan 480  
 ngnaattnaa ccnaaccccc nttaaattng nntttgcncn ccacnngccc cnccttccca 540  
 ntteggggaa aaccctntcc gtgccca 567

<210> 94  
 <211> 620  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 169, 171, 222, 472, 528, 559, 599  
 <223> n = A,T,C or G

<400> 94  
 actagtcaaa aatgctaaaa taatttggga gaaaatattt tttaagtagt gttatagttt 60  
 catgtttatc ttttattatg ttttgtgaag ttgtgtcttt tcactaatta cctatactat 120  
 gccaatattt ctttatatct atccataaca ttatactac atttgtaana naatatgcac 180  
 gtgaaactta acactttata aggtaaaaat gaggtttcca anatttaata atctgatcaa 240  
 gttcttggtt tttccaaata gaatggactt ggtctgttaa gggctaagga gaagaggaag 300  
 ataaggttaa aagtgtgtaa tgaccaaaca ttctaaaaga aatgcaaaaa aaaagtttat 360  
 tttcaagcct tcgaactatt taaggaaagc aaaatcattt cctaaatgca tatcatttgt 420  
 gagaatttct cattaatatc ctgaatcatt catttcacta aggctcatgt tnactccgat 480  
 atgtctctaa gaaagtacta tttcatggtc caaacctggt tgccatantt gggtaaaagg 540  
 tttcccttaa gtgtgaaant atttaaaatg aaattttcct ctttttaaaa attctttana 600  
 agggtttaagg gtgttgggga 620

<210> 95  
 <211> 470  
 <212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 61, 67, 79, 89, 106, 213, 271, 281, 330, 354, 387, 432, 448

<223> n = A,T,C or G

<400> 95

```
ctcgaccttc tctgcacagc ggatgaaccc tgagcagctg aagaccagaa aagccactat 60
nactttntgc ttaattcang agcttacang attcttcaaa gagtgngtcc agcatccttt 120
gaaacatgag ttcttaccag cagaagcaga cctttacccc accacctcag cttcaacagc 180
agcaggtgaa acaaccatc cagcctccac ctnaggaaat atttggtccc acaaccaagg 240
agccatgcc a ctcaaagggt ccacaacctg naaacacaaa nattccagag ccaggctgta 300
ccaaggtccc tgagccaggg ctgtaccaan gtccctgagc caggttgtag caangtcctt 360
gagccaggat gtaccaagggt ccctgancca ggttggtccaa ggtccctgag ccaggctaca 420
ccaagggcct gngccaggca gcatcaangt ccctgaccaa ggcttatcaa 470
```

<210> 96

<211> 660

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 299, 311, 360, 426, 538, 540, 542, 553, 563, 565, 592, 603, 604, 618, 633, 647, 649, 651, 653

<223> n = A,T,C or G

<400> 96

```
tttttttttt tttttttttt ggaattaaaa gcaatttaat gagggcagag caggaaacat 60
gcatttcttt tcattcgaat cttcagatga accctgagca gccgaagacc agaaaagcca 120
tgaagacttt ctgcttaatt caggggctta caggattctt cagagtgtgt gtgaacaaaa 180
gctttatagt acgtattttt aggatacaaa taagagagag actatggctt ggggtgagaa 240
tgtactgatt acaaggtcta cagacaatta agacacagaa acagatggga agagggtgnc 300
cagcatctgg nggttggtct ctcaagggct tgtctgtgca ccaaattact tctgcttggc 360
cttctgctga gctgggcttg gagtgaccgt tgaaggacat ggctctggta ctttctgtga 420
gcctgncaca ggaacttttg tgtatccttg ctcaggaact ttgatggcac ctggctcagg 480
aaacttgatg aagccttggt caagggacct tgatgcttgc tggctcaggg accttgngn 540
ancctgggct canggacctt tgnncnaacc ttggcttcaa gggacccttg gnacatcctg 600
gcnnagggac ctttgggncc aaccctgggc ttnagggacc ctttggntnc nanccttggc 660
```

<210> 97

<211> 441

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 12, 308

<223> n = A,T,C or G

<400> 97

```
gggaccatac anagtattcc tctcttcaca ccaggaccag ccactgttgc agcatgagtt 60
```

```

cccagcagca gaagcagccc tgcattccac cccctcagct tcagcagcag caggtgaaac 120
agccttgcca gcctccacct caggaacctat gcattcccaa aaccaaggag ccctgccacc 180
ccaaggtgcc tgagccctgc caccctaaaag tgcctgagcc ctgccagccc aaggttccag 240
agccatgccca ccccaagggtg cctgagccct gcccttcaat agtcactcca gcaccagccc 300
agcagaanac caagcagaag taatgtgggtc cacagccatg cccttgagga gccggccacc 360
agatgtctgaa tcccctatcc cattctgtgt atgagtccca tttgccttgc aattagcatt 420
ctgtctcccc caaaaaaaaa a                                     441

```

<210> 98

<211> 600

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 295, 349, 489, 496, 583

<223> n = A,T,C or G

<400> 98

```

gtattcctct cttcacacca ggaccagcca ctgttgagc atgagttccc agcagcagaa 60
gcagccctgc atcccacccc ctgagcttca gcagcagcag gtgaaacagc cttgccagcc 120
tccacctcag gaacctatga tcccctaaaac caaggagccc tgccacccca aggtgcctga 180
gccctgccac cccaaagtgc ctgagccctg ccagcccaag gttccagagc catgccaccc 240
caaggtgcct gagccctgcc cttcaatagt cactccagca ccagcccagc agaanaccaa 300
gcagaagtaa tgtggtccac agccatgccc ttgaggagcc ggccaccana tgctgaatcc 360
cctatcccat tctgtgtatg agtcccattt gccttgcaat tagcattctg tctcccccaa 420
aaaagaatgt gctatgaagc tttctttcct acacactctg agtctctgaa tgaagctgaa 480
ggctcttaant acagantcag ttttcagctg ctcagaattc tctgaagaaa agatttaaga 540
tgaaaggcaa atgattcagc tccttattac cccattaaat tcnctttcaa ttccaaaaaa 600

```

<210> 99

<211> 667

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 345, 562, 635

<223> n = A,T,C or G

<400> 99

```

actagtgact gagttcctgg caaagaaatt tgacctggac cagttgataa ctcatgtttt 60
accattttaa aaaatcagtg aaggatttga gctgctcaat tcaggacaaa gcattcgaac 120
ggctctgacg ttttgagatc caaagtggca ggaggctctgt gttgtcatgg tgaactggag 180
tttctcttgt gagagttccc tcatctgaaa tcatgtatct gtctcacaaa tacaagcata 240
agtagaagat ttgttgaaga catagaaccc ttataaagaa ttattaacct ttataaacat 300
ttaaagtcct gtgagcacct gggaattagt ataatacaa tgttnatatt tttgatttac 360
atcttgtaag gctataattg tatcttttaa gaaaacatac cttggatttc tatgttgaaa 420
tgagagatttt taagagtttt aaccagctgc tgcagatata ttactcaaaa cagatatagc 480
gtataaagat atagtaaatg catctcctag agtaatatc acttaacaca ttggaaacta 540
ttatttttta gatttgaata tnaatgttat tttttaaaca cttgttatga gttacttggg 600
attacatttt gaaatcagtt cattccatga tgcanaattac tgggattaga ttaagaaaga 660
cgaaaaa                                     667

```

<210> 100  
 <211> 583  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 404, 506, 514, 527, 528, 538, 548, 556, 568, 569  
 <223> n = A,T,C or G

<400> 100  
 gttttgtttg taagatgac acagtcacgt tacactgac taaaggacat atatataacc 60  
 ctttaaaaaa aaaatcactg cctcattctt atttcaagat gaatttctat acagactaga 120  
 tgtttttctg aagatcaatt agacattttg aaaatgattt aaagtgtttt ccttaatggt 180  
 ctctgaaaac aagtttcttt ttagtattta accaaaaaag tgcccttttt gtcactggat 240  
 tctcctagca ttcatgattt ttttttcata caatgaaatt aaaattgcta aaatcatgga 300  
 ctggctttct gggttgattt caggtaagat gtgtttaagg ccagagcttt tctcagtatt 360  
 tgattttttt ccccaatatt tgatttttta aaaatataca catnggtgct gcattttatat 420  
 ctgctggttt aaaattctgt catatttcac ttctagcctt ttagttatgg caaatcatat 480  
 tttactttta cttaaagcat ttggttattt ggantatctg gttctannct aaaaaaanta 540  
 attctatnaa ttgaantttt ggtactcnnn catatttgga tcc 583

<210> 101  
 <211> 592  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 218, 497, 502, 533, 544, 546, 548, 550, 555  
 <223> n = A,T,C or G

<400> 101  
 gtggagacgt acaaagagca gccgctcaag acacctggga agaaaaagaa aggcaagccc 60  
 gggaaacgca aggagcagga aaagaaaaaa cggcgaaact gctctgcctg gttagactct 120  
 ggagtgactg ggagtgggct agaaggggac cacctgtctg acacctccac aacgtcgctg 180  
 gagctcgatt cagcgaggca ttgaaatttt cagcaganac cttccaagga catattgcag 240  
 gattctgtaa tagtgaacat atggaaagta ttagaaatat ttattgtctg taaatactgt 300  
 aaatgcattg gaataaaact gtctccccc ttgctctatg aaactgcaca ttggtcattg 360  
 tgaatatttt ttttttgcc aaggctaata caattattat tatcacattt accataattt 420  
 attttgcca ttgatgtatt tttttgtaa atgtatctg gtgctgctga atttctatat 480  
 tttttgtaca taatgcnttt anatatacct atcaagttt ttgataaatg acncaatgaa 540  
 gtgncncnan ttgngggtt aatttaatga atgcctaatt ttattatccc aa 592

<210> 102  
 <211> 587  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 91, 131, 256, 263, 332, 392, 400, 403, 461, 496, 497, 499,  
 510, 511, 518, 519, 539, 554, 560, 576

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```
<400> 104
gcacctgctc tcaatccnnc tctcaccatg atcctccgcc tgcanaaact cctctgccaa 60
ctatggangt ggtttcnggg gtggctcttg ccaactggga agaagccgtg gtgtctctac 120
ctgtttcaact cngtttgtgt ctgggggagc aactnggggc tatggaagcg gctnaactgt 180
tgttttggtg qaaqggctgq taattgqctt tgggaagtnq cttatngaag ttggcctngt 240
```

```
<210> 105
<211> 619
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 260, 527, 560, 564, 566, 585, 599
<223> n = A,T,C or G
```

```
<210> 106
<211> 506
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 8, 21, 31, 32, 58, 75, 89, 96, 99, 103, 122, 126, 147, 150,
158, 195, 210, 212, 219, 226, 246, 248, 249, 255, 258, 261,
263, 265, 275, 304, 317, 321, 331, 337, 340, 358, 371, 377,
380, 396, 450, 491
<223> n = A,T,C or G
```

<400> 106							
cattggtnct	ttcatttgct	ntggaagtg	nntctcttaa	cagtggacaa	agttcccngt	60	
gccttaaact	ctgtnacact	tttggaant	gaaaanttng	tantatgata	ggttattctg	120	
angtanagat	gttctggata	ccattanatn	tgccccngt	gtcagaggct	catatttgtg	180	
tatgtaaatg	gtatntcatt	cgctactatn	antcaattng	aaatanggtc	tttgggttat	240	
gaatantnng	cagcncanct	nanangctgt	ctgtngtatt	cattgtggtc	atagcacctc	300	
acancattgt	aacctcnatc	nagtgagaca	nactagnaana	ttcctagtga	tggtcanga	360	
ttccaaatgg	ntctatntcn	aatgtttaaa	agttanttaa	gtgtaagaaa	tacagactgg	420	
atgtttccac	aactagatcc	tgtaatgacn	ggcctgtccc	aacacatctc	ccttttccat	480	
gactgtgqta	nccgcacatc	gaaaaa				506	

<210> 107  
 <211> 452  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 289, 317, 378  
 <223> n = A,T,C or G

<400> 107  
 gttgagtctg tactaaacag taagatatct caatgaacca taaattcaac tttgtaaaaa 60  
 tcttttgaag catagataat attgtttggt aaatgtttct tttgtttggt aaatgtttct 120  
 tttaaagacc ctccatttct ataaaactct gcatgtagag gcttgtttac ctttctctct 180  
 ctaagggttta caataggagt ggtgatttga aaaatataaa attatgagat tggttttcct 240  
 gtggcataaa ttgcatcact gtatcatttt cttttttaac cggtaagant ttcagtttgt 300  
 tgaaaagtaa ctgtganaac ccagtttccc gtccatctcc cttagggact acccatagaa 360  
 catgaaaagg tccccacnga agcaagaaga taagtctttc atggctgctg gttgcttaaa 420  
 ccactttaaa accaaaaaat tccccttgga aa 452

<210> 108  
 <211> 502  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 22, 31, 126, 168, 183, 205, 219, 231, 236, 259, 283, 295,  
 296, 298, 301, 340, 354, 378, 383, 409, 433, 446, 455, 466,  
 488  
 <223> n = A,T,C or G

<400> 108  
 atcttcttcc cttaattagt tnttatttat ntattaaatt ttattgcatg tcctggcaaa 60  
 caaaaagaga ttgtagattg gcttctggct ccccaaaagc ccataacaga aagtaccaca 120  
 agaccncaac tgaagcttaa aaaatctatc acatgtataa taccttnga agaacattaa 180  
 tanagcatat aaaactttta acatntgctt aatgttgtnc aattataaaa ntaatngaaa 240  
 aaaatgtccc ttaacatnc aatatccac atagtgttat ttnaggggat taccnngnaa 300  
 naaaaaaagg gtagaaggga tttaatgaaa actctgcttn ccatttctgt ttanaaacgt 360  
 ctccagaaca aaaacttntc aantctttca gctaaccgca tttgagctna ggccactcaa 420  
 aaactccatt agnccactt tctaanggtc tctanagctt actaancctt ttgaccctt 480  
 accctggnta ctctgcct ca 502

<210> 109  
 <211> 1308  
 <212> DNA  
 <213> Homo sapiens

<400> 109  
 acccgaggtc tcgctaaaat catcatggat tcaattggcg ccgtcagcac tcgacttggg 60  
 tttgatcttt tcaaagagct gaagaaaaca aatgatggca acatcttctt tccccctgtg 120  
 ggcattctga ctgcaattg catggctctc ctggggaccc gaggagccac cgcttccag 180  
 ttggaggagg tgtttcactc tgaaaaagag acgaagagct caagaataaa ggctgaagaa 240  
 aaagaggtga ttgagaacac agaagcagta catcaacaat tccaaaagt tttgactgaa 300

1000700713001

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<210> 110
<211> 391
<212> PRT
<213> Homo sapiens

<400> 110
Met Asp Ser Leu Gly Ala Val Ser Thr Arg Leu Gly Phe Asp Leu Phe
 1          5          10          15
Lys Glu Leu Lys Lys Thr Asn Asp Gly Asn Ile Phe Phe Ser Pro Val
      20          25          30
Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala
      35          40          45
Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys
      50          55          60
Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Ile Glu Asn Thr Glu
65          70          75          80
Ala Val His Gln Gln Phe Gln Lys Phe Leu Thr Glu Ile Ser Lys Leu
      85          90          95
Thr Asn Asp Tyr Glu Leu Asn Ile Thr Asn Arg Leu Phe Gly Glu Lys
      100          105          110
Thr Tyr Leu Phe Leu Gln Lys Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr
      115          120          125
His Ala Ser Leu Glu Pro Val Asp Phe Val Asn Ala Ala Asp Glu Ser
      130          135          140
Arg Lys Lys Ile Asn Ser Trp Val Glu Ser Lys Thr Asn Glu Lys Ile
145          150          155          160
Lys Asp Leu Phe Pro Asp Gly Ser Ile Ser Ser Ser Thr Lys Leu Val
      165          170          175
Leu Val Asn Met Val Tyr Phe Lys Gly Gln Trp Asp Arg Glu Phe Lys
      180          185          190
Lys Glu Asn Thr Lys Glu Glu Lys Phe Trp Met Asn Lys Ser Thr Ser
      195          200          205
Lys Ser Val Gln Met Met Thr Gln Ser His Ser Phe Ser Phe Thr Phe
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Leu Glu Asp Leu Gln Ala Lys Ile Leu Gly Ile Pro Tyr Lys Asn Asn
225          230          235          240

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<211> 1419

<212> DNA

<213> Homo sapiens

<400> 111

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<211> 400  
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<400> 112

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1000700-1300

385

390

395

400

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 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Gly Asn Thr Lys Ile Pro Glu Pro Gly Cys Thr Lys Val Pro Glu Pro  
 50 55 60  
 Gly Cys Thr Lys Val Pro Glu Pro Gly Cys Thr Lys Val Pro Glu Pro  
 65 70 75 80  
 Gly Cys Thr Lys Val Pro Glu Pro Gly Cys Thr Lys Val Pro Glu Pro  
 85 90 95  
 Gly Tyr Thr Lys Val Pro Glu Pro Gly Ser Ile Lys Val Pro Asp Gln  
 100 105 110  
 Gly Phe Ile Lys Phe Pro Glu Pro Gly Ala Ile Lys Val Pro Glu Gln  
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<210> 115  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

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 380, 396, 450, 491  
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<211> 6921

<212> DNA

<213> Homo sapiens

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cacttcagga cgcagtctcc caggggtgtga ttgaccaaga catggccacc agcgtgaagc 8400
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```

```

<210> 120
<211> 587
<212> DNA
<213> Homo sapiens

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```

<220>
<221> misc_feature
<222> 91, 131, 256, 263, 332, 392, 400, 403, 461, 496, 497, 499,
510, 511, 518, 519, 539, 554, 560, 576
<223> n = A,T,C or G

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<400> 120
cgtcctaagc acttagacta catcagggaa gaacacagac cacatccctg tcctcatgcg 60
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gggctgtgca ntccggtcag ggcgggaagg gaaatgcacc gctgcatgtg aacttacagc 180
ccaggcggat gccccttccc ttagcactac ctggcctcct gcattcccctc gcctcatgtt 240
cctcccacct tcaanaaatg aanaacccca tgggcccagc cccttgccct ggggaaccaa 300
ggcagccttc caaaactcag gggctgaagc anactattag ggcaggggct gactttgggt 360
gacactgccc attcctctc agggcagctc angtcacccn ggnctcttga acccagcctg 420
ttcctttgaa aaagggcaaa actgaaaagg gcttttccta naaaaagaaa aaccagggaa 480
ctttgccagg gcttcnntnt taccaaaacn ncttctcnng gatttttaat tccccattng 540
gcctccactt accnggggcn atgccccaaa attaanaatt tcccatc 587

```

```

<210> 121
<211> 619
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> 260, 527, 560, 564, 566, 585, 599
<223> n = A,T,C or G

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<400> 121
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tgcataaagc caatgtatgc cagtttctaa gatcatgttc caagctaact gaatccact 180
tcaatacaca ctcatgaact cctgatggaa caataacagg cccaagcctg tggatatgatg 240
tgcacacttg ctgactcan aaaaaatact actctcataa atgggtggga gtattttggt 300
gacaacctac tttgcttggc tgagtgaagg aatgatattc atatattcat ttattccatg 360

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gacatttagt tagtgctttt tatataccag gcatgatgct gagtgacact cttgtgtata 420
tttccaaatt tttgtacagt cgctgcacat atttgaaatc atatattaag acttccaaaa 480
aatgaagtcc ctggtttttc atggcaactt gatcagtaaa ggattcncct ctggttggtgta 540
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aagtgtggg gaaaaaaaa . 619

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<210> 122

<211> 1475

<212> DNA

<213> Homo sapiens

<400> 122

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tcgtgagcga ctccaaaggc agcaatgaac ttcattcaagt tccatcgaac tgtgactgtc 180
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<210> 123

<211> 2294

<212> DNA

<213> Homo sapiens

<400> 123

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aaaggcagca atgaacttca tcaagttcca tcgaactgtg actgtctaaa tggaggaaca 180
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gtccttcagc aaacgtacca tgccacaga tctgatgctc ttcagctggg cctggggaaa 420
cataattact gcaggaaacc agacaaccgg aggcgaccct ggtgctatgt gcagggtggc 480
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```



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 gtgatcagcg ccacacactg cttcattgat tacccaaaga aggaggacta catcgtctac 780  
 ctgggtcgct caaggcttaa ctccaacacg caaggggaga tgaagtttga ggtggaaaac 840  
 ctaatcctac acaaggacta cagcgctgac acgcttgctc accacaacga cattgccttg 900  
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<210> 124

<211> 956

<212> DNA

<213> Homo sapiens

<400> 124

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 cagattgaga acctcaagga ggagctggcc tacctgaaga agaaccacga ggaggagatg 180  
 aacgccctgc gaggccaggt ggggtgtgag atcaatgtgg agatggacgc tgccccaggc 240  
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 ctgctggagg gagaggatgc ccacctgact cagtacaaga aagaaccggt gaccaccctg 720  
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 cgcagccgcc ccattctgcc cacagtctcc ggctctcca gcctcagccc cctgcttcag 900  
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<210> 125

<211> 486  
 <212> DNA  
 <213> Homo sapiens  
  
 <220>  
 <221> misc\_feature  
 <222> 16  
 <223> n = A,T,C or G

<400> 125  
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 ttggaact gcttttcttc tgagaacctt attctgaatg tcatcaactt taccaaacct 180  
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 tctgttttagc cagtgttacc aaggtaagct ggggaatgaa gtataccaac ttctttcaga 300  
 gcatttttagg acattatggc agcttttagaa ggctgtcttg tttctagcca agggagagcc 360  
 agcgacagggt ttggatacta gagaaagtca tttgcttgta ctattgccat tttagaaagc 420  
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 tttact 486

<210> 126  
 <211> 3552  
 <212> DNA  
 <213> Homo sapiens

<400> 126  
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 gctgtgacc ctctgtatct tcagtcgtgc tgggtgaagcc tgcaaaaagg tgatacttaa 180  
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<210> 127
<211> 754
<212> DNA
<213> Homo sapiens
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<210> 128

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<212> DNA
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<210> 133

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<221> misc feature

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<400> 134

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<213> Homo sapiens

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<213> Homo sapiens

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<211> 354

<212> DNA

<213> Homo sapiens

<400> 143

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```

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gtggtggagt gtgtcatgaa caatgtcacc tgtactcgga tctatgaaaa agtagaataa 180
aaattccatc atcacttttg acaggagtta attaagagaa tgaccaagct cagttcaatg 240
agcaaattct catactgttt ctttcttttt tttttcatta ctgtgttcaa ttatctttat 300
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<210> 144

<211> 353

<212> DNA

<213> Homo sapiens

<400> 144

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aagatgacag actaagtagg attctgccat ttagaataat tctggtatcc tgggcgttgc 180
gttaagttgc ttaactttca ttctgtctta cgatagtctt cagaggtggg aacagatgaa 240
gaaaccatgc cccagagaag gttaagtgc ttctcttta tggagccagt gttccaacct 300
aggtttgctt gataccagac ctgtggcccc acctcccatg caggtctctg tgg 353

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<210> 145

<211> 371

<212> DNA

<213> Homo sapiens

<400> 145

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attgccactg ttgatcacta gctttttctt ctgccacac cttcttcgac tgttgactgc 180
aatgcaaact gcaagaatca aagccaaggc caagagggat gccaagatga tcagccattc 240
tggaatttgg ggtgtcctta taggaccaga gggtgtgttt gctccacctt cttgactccc 300
atgtgagacc tcggccgcga ccacgctaag ccgaattcca gcacactggc ggcccgttac 360
tagtgatcc g 371

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<210> 146

<211> 355

<212> DNA

<213> Homo sapiens

<400> 146

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caggatggcg agtagcagcg gctccaaggc tgaattcatt gtcggaggga aatataaact 120
ggtacggaag atcgggtctg gctccttcgg ggacatctat ttggcgatca acatcaccaa 180
cggcgaggaa gtggcagtga agctagaatc tcagaaggcc aggcacccc agttgctgta 240
cgagagcaag ctctataaga ttcttcaagg tggggttggc atccccaca tacggtggta 300
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<210> 147

<211> 355

<212> DNA

<213> Homo sapiens

<400> 147

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tgacttttta gggttgctga tccatcaatc ttgcactcaa ctgttacttc tttcccagt 180

```

```

ttgttaggag caaagctgac ctgaacagca accaatggct gtagataccc aacatgcagt 240
tttttcccat aatatgggaa atattttaag tctatcattc cattatgagg ataaactgct 300
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```

<210> 148

<211> 369

<212> DNA

<213> Homo sapiens

<400> 148

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agggagtgtg ccgagggctt ctgagaaggt ttctctcaca tctagaaaga agcgcttaag 180
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gctgcagcag cctccatcca gcctgaggat gacatcaata cacagaggaa gaagagtcag 300
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<210> 149

<211> 620

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 169, 171, 222, 472, 528, 559, 599

<223> n = A,T,C or G

<400> 149

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gccaatattt ccttatactc atccataaca tttatactac atttgaana naatatgcac 180
gtgaaactta acactttata aggtaaaaat gaggtttcca anatttaata atctgatcaa 240
gttcttgtaa tttccaaata gaatggactt ggtctgttaa gggctaagga gaagaggaag 300
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atgtctctaa gaaagtacta tttcatggtc caaacctggt tgccatantt gggtaaaggc 540
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<210> 150

<211> 371

<212> DNA

<213> Homo sapiens

<400> 150

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10070013001

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<210> 152

<211> 586

<212> PRT

<213> Homo sapiens

<400> 152

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 20          25          30
Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
 35          40          45
Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala
 50          55          60
Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
 65          70          75          80
His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala
 85          90          95
Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala
100          105          110
Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Pro Gln Gly
115          120          125

```

Ala	Val	Ile	Arg	Ala	Met	Pro	Val	Tyr	Lys	Lys	Ala	Glu	His	Val	Thr
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Glu	Gly	Gln	Ile	Ala	Pro	Ser	Ser	His	Leu	Ile	Arg	Val	Glu	Gly	Asn
				165					170						175
Ser	His	Ala	Gln	Tyr	Val	Glu	Asp	Pro	Ile	Thr	Gly	Arg	Gln	Ser	Val
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Asp	Arg	Lys	Ala	Asp	Glu	Asp	Ser	Ile	Arg	Lys	Gln	Gln	Val	Ser	Asp
			260					265					270		
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His	Gly	Ile	Gln	Met	Thr	Ser	Ile	Lys	Lys	Arg	Arg	Ser	Pro	Asp	Asp
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Glu	Leu	Val	Tyr	Leu	Pro	Val	Arg	Gly	Arg	Glu	Thr	Tyr	Glu	Met	Leu
305					310					315					320
Val	Lys	Ile	Lys	Glu	Ser	Leu	Glu	Leu	Met	Gln	Tyr	Leu	Leu	Gln	His
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Thr	Ile	Glu	Thr	Tyr	Arg	Gln	Gln	Gln	Gln	Gln	Gln	His	Gln	His	Leu
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450					455					460					
Ser	Ser	Cys	Leu	Asp	Tyr	Phe	Thr	Thr	Gln	Gly	Leu	Thr	Thr	Ile	Tyr
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Gln	Ile	Glu	His	Tyr	Ser	Met	Asp</								



<400> 154  
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<210> 155

<211> 153

<212> PRT

<213> Homo sapiens

<400> 155

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20           25           30
Pro Met Gly Asp Val Pro Met Asp Gly Ile Ser Val Ala Asp Ile Gly
35           40           45
Ala Ala Val Ser Ser Ile Phe Asn Ser Pro Glu Glu Phe Leu Gly Lys
50           55           60
Ala Val Gly Leu Ser Ala Glu Ala Leu Thr Ile Gln Gln Tyr Ala Asp
65           70           75           80
Val Leu Ser Lys Ala Leu Gly Lys Glu Val Arg Asp Ala Lys Ile Thr
85           90           95

```

Pro Glu Ala Phe Glu Lys Leu Gly Phe Pro Ala Ala Lys Glu Ile Ala  
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 Asn Met Cys Arg Phe Tyr Glu Met Lys Pro Asp Arg Asp Val Asn Leu  
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 Thr His Gln Leu Asn Pro Lys Val Lys Ser Phe Ser Gln Phe Ile Ser  
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 Pro Met Gly Asp Val Pro Met Asp Gly Ile Ser Val Ala Asp Ile Gly  
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 Val Leu Ser Lys Ala Leu Gly Lys Glu Val Arg Asp Ala Lys Thr Ile  
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 Cys Ala Ile Asp Asp Gln Lys Thr Val Glu Glu Gly Phe Met Glu Asp  
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10070011391

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 Tyr Tyr Arg His Glu Thr Thr Arg Lys Phe Arg Arg Gly Glu Lys Arg  
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 Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Phe Leu Tyr Asn Gly  
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 Leu Val Asp Cys Phe Ile Ser Arg Pro Thr Glu Lys Thr Val Phe Thr  
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 225 230 235 240  
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 Thr Gly Ser Gln Ala Lys His Phe Lys Val Lys Cys Ser Cys Val Ile  
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<211> 3951

<212> DNA

<213> Homo sapiens

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Phe	Phe	Arg	Asn	Ile	Lys	Ile	Leu	Ile	Pro	Ala	Thr	Trp	Lys	Ala	Asn	
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Lys	Met	Ala	Glu	Ala	Asp	Arg	Leu	Leu	Gln	Leu	Gln	Gln	Ala	Ala	Glu	
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Phe	Tyr	Leu	Met	Gln												

385															390															395															400	
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Ala	Ala	Pro	Asn	Leu	Glu	Glu	Leu	Ser	Arg	Leu	Thr	Gly	Gly	Leu	Lys	450															455															460
Phe	Phe	Val	Pro	Asp	Ile	Ser	Asn	Ser	Asn	Ser	Met	Ile	Asp	Ala	Phe	465															470															475
Ser	Arg	Ile	Ser	Ser	Gly	Thr	Gly	Asp	Ile	Phe	Gln	Gln	His	Ile	Gln	485															490															495
Leu	Glu	Ser	Thr	Gly	Glu	Asn	Val	Lys	Pro	His	His	Gln	Leu	Lys	Asn	500															505															510
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Thr	Trp	Gln	Ala	Ser	Gly	Pro	Pro	Glu	Ile	Ile	Leu	Phe	Asp	Pro	Asp	530															535															540
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Thr	Ala	Thr	Val	Glu	Pro	Glu	Thr	Gly	Asp	Pro	Val	Thr	Leu	Arg	Leu	645															650															655
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Glu	Ile	Arg	Met	Ser	Lys	Ser	Leu	Gln	Asn	Ile	Gln	Asp	Phe	Asn		805															810															815
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<212> DNA

<213> Homo sapiens

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Lys Ser Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile
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 Lys Ser Ile Gln Asp Leu Arg Arg Phe Phe Leu His His Leu Ile  
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 Ala Glu Ile His Thr Ala Glu Ile Arg Ala Thr Ser Glu Val Ser Pro  
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Val	Gln	Leu	Gln	Asp	Asn	Gly	Tyr	Asn	Gly	Leu	Leu	Ile	Ala	Ile	Asn
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 Lys Met Ala Glu Ala Asp Arg Leu Leu Gln Leu Gln Gln Ala Ala Glu  
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 Phe Tyr Leu Met Gln Ile Val Glu Ile His Thr Phe Val Gly Ile Ala  
 340 345 350  
 Ser Phe Asp Ser Lys Gly Glu Ile Arg Ala Gln Leu His Gln Ile Asn  
 355 360 365  
 Ser Asn Asp Asp Arg Lys Leu Val Ser Tyr Leu Pro Thr Thr Val  
 370 375 380  
 Ser Ala Lys Thr Asp Ile Ser Ile Cys Ser Gly Leu Lys Lys Gly Phe  
 385 390 395 400  
 Glu Val Val Glu Lys Leu Asn Gly Lys Ala Tyr Gly Ser Val Met Ile  
 405 410 415  
 Leu Val Thr Ser Gly Asp Asp Lys Leu Leu Gly Asn Cys Leu Pro Thr  
 420 425 430  
 Val Leu Ser Ser Gly Ser Thr Ile His Ser Ile Ala Leu Gly Ser Ser  
 435 440 445  
 Ala Ala Pro Asn Leu Glu Glu Leu Ser Arg Leu Thr Gly Gly Leu Lys  
 450 455 460  
 Phe Phe Val Pro Asp Ile Ser Asn Ser Asn Ser Met Ile Asp Ala Phe  
 465 470 475 480  
 Ser Arg Ile Ser Ser Gly Thr Gly Asp Ile Phe Gln Gln His Ile Gln  
 485 490 495  
 Leu Glu Ser Thr Gly Glu Asn Val Lys Pro His His Gln Leu Lys Asn  
 500 505 510  
 Thr Val Thr Val Asp Asn Thr Val Gly Asn Asp Thr Met Phe Leu Val  
 515 520 525  
 Thr Trp Gln Ala Ser Gly Pro Pro Glu Ile Ile Leu Phe Asp Pro Asp  
 530 535 540  
 Gly Arg Lys Tyr Tyr Thr Asn Asn Phe Ile Thr Asn Leu Thr Phe Arg  
 545 550 555 560  
 Thr Ala Ser Leu Trp Ile Pro Gly Thr Ala Lys Pro Gly His Trp Thr  
 565 570 575  
 Tyr Thr Leu Asn Asn Thr His His Ser Leu Gln Ala Leu Lys Val Thr  
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<210> 171
<211> 1491
<212> DNA
<213> Homo sapiens
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tgagaaggtt	tctctcacat	ctagaaaaga	gcgttaaga	tgtggcagcc	cctcttcttc	180
aagtggctct	tgtctgttg	ccctgggagt	tctcaaatg	ctgcagcagc	ctccaccga	240
cctgaggatg	acatcaatat	acagaggaag	aaagctcagg	aaaagctagag	agaagttaca	300
gactctcctg	ggcgaccccg	agagctttacc	attcctcaga	cttcttcaca	tgggtgctaac	360
agatttggtt	ctaaaagtaa	agctctagag	gccgtcaa	tggcaataga	agccgggttc	420
caccatattg	attctgcaca	tgtttacaat	aatgaggagc	aggttgga	ggccatccga	480
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gaatgtgatcc	caaaagatga	aaatggaaaa	atactatttg	acacagtcca	tctctgtgcc	720
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gtcctggcca	agagctacaa	tgagcagcgc	atcagacaga	acgtgcaagt	gtttgaattc	1140
caqttgactt	caqaggagat	gaaagccata	gatggcctaa	acagaaatgt	gcgatatttg	1200

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acccttgata tttttgctgg ccccccctaat tatccatttt ctgatgaata ttaacatgga 1260
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ctatgctggt gactggacac atcgctctcg gttaaattctc tcctgcttgg cgacttcagt 1380
aagctacagc taagcccatc ggccggaaaa gaaagacaat aattttgttt ttcattttga 1440
aaaaattaaa tgctctctcc taaagattct tcacctaaaa aaaaaaaaaa a 1491

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<210> 172

<211> 364

<212> PRT

<213> Homo sapiens

<400> 172

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20      25      30
Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp
35      40      45
Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His
50      55      60
Gly Ala Asn Arg Phe Val Pro Lys Ser Lys Ala Leu Glu Ala Val Lys
65      70      75      80
Leu Ala Ile Glu Ala Gly Phe His His Ile Asp Ser Ala His Val Tyr
85      90      95
Asn Asn Glu Glu Gln Val Gly Leu Ala Ile Arg Ser Lys Ile Ala Asp
100     105     110
Gly Ser Val Lys Arg Glu Asp Ile Phe Tyr Thr Ser Lys Leu Trp Ser
115     120     125
Asn Ser His Arg Pro Glu Leu Val Arg Pro Ala Leu Glu Arg Ser Leu
130     135     140
Lys Asn Leu Gln Leu Asp Tyr Val Asp Leu Tyr Leu Ile His Phe Pro
145     150     155     160
Val Ser Val Lys Pro Gly Glu Glu Val Ile Pro Lys Asp Glu Asn Gly
165     170     175
Lys Ile Leu Phe Asp Thr Val Asp Leu Cys Ala Thr Trp Glu Ala Met
180     185     190
Glu Lys Cys Lys Asp Ala Gly Leu Ala Lys Ser Ile Gly Val Ser Asn
195     200     205
Phe Asn His Arg Leu Leu Glu Met Ile Leu Asn Lys Pro Gly Leu Lys
210     215     220
Tyr Lys Pro Val Cys Asn Gln Val Glu Cys His Pro Tyr Phe Asn Gln
225     230     235     240
Arg Lys Leu Leu Asp Phe Cys Lys Ser Lys Asp Ile Val Leu Val Ala
245     250     255
Tyr Ser Ala Leu Gly Ser His Arg Glu Glu Pro Trp Val Asp Pro Asn
260     265     270
Ser Pro Val Leu Leu Glu Asp Pro Val Leu Cys Ala Leu Ala Lys Lys
275     280     285
His Lys Arg Thr Pro Ala Leu Ile Ala Leu Arg Tyr Gln Leu Gln Arg
290     295     300
Gly Val Val Val Leu Ala Lys Ser Tyr Asn Glu Gln Arg Ile Arg Gln
305     310     315     320
Asn Val Gln Val Phe Glu Phe Gln Leu Thr Ser Glu Glu Met Lys Ala
325     330     335

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Ile Asp Gly Leu Asn Arg Asn Val Arg Tyr Leu Thr Leu Asp Ile Phe  
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 Ala Gly Pro Pro Asn Tyr Pro Phe Ser Asp Glu Tyr  
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<210> 173  
 <211> 1988  
 <212> DNA  
 <213> Homo sapiens

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 ccgcgcgcgcc cgtcaacatg atccgctgcg gcttgccctg cgagcgctgc cgctggatcc 180  
 tgcccctgct cctactcagc gccatcgctt tcgacatcat cgcgctggcc ggccgcggct 240  
 ggttgacgtc tagcgaccac ggccagacgt cctcgctgtg gtggaaatgc tccaagagg 300  
 gcggcggcag cgggtcctac gaggagggct gtcagagcct catggagtac gcgtggggta 360  
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 ccttcttcgc cctctgtgga cccagatgc ttgtcttcct gagagtgtt ggaggtctcc 480  
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 ttgggtgggc agccacgatt atcctgatcg gctgtgcctt cttcttctgc tgccctccca 660  
 actacgaaga tgaccttctg ggcaatgcc agcccaggta cttctacaca tctgcctaac 720  
 ttgggaatga atgtgggaga aaatcgctgc tgctgagatg gactccagaa gaagaaactg 780  
 tttctccagg cgactttgaa cccatTTTTT ggcagtgttc atattattaa actagtcaaa 840  
 aatgctaataa taatttggga gaaaatattt ttaaagtagt gttatagttt catgtttatc 900  
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 acactttata aggtaaaaat gaggtttcca agatttaata atctgatcaa gttcttggtta 1080  
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 tcgaactatt taaggaaaagc aaaatcattt cctaaatgca tatcatttgt gagaatttct 1260  
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 tgtgaaatat ttagatgaaa ttttctcttt taaagttctt tatagggtta ggggtgtgga 1440  
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 cttacataat gaaaaccaat tcatttttaa tatcagatta ttattttgta agttgtggaa 1920  
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<210> 174  
 <211> 238  
 <212> PRT  
 <213> Homo sapiens

<400> 174  
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20           25           30
Leu Arg Ser Ala Pro Leu Gly Pro Ala Pro Pro Val Asn Met Ile Arg
35           40           45
Cys Gly Leu Ala Cys Glu Arg Cys Arg Trp Ile Leu Pro Leu Leu Leu
50           55           60
Leu Ser Ala Ile Ala Phe Asp Ile Ile Ala Leu Ala Gly Arg Gly Trp
65           70           75           80
Leu Gln Ser Ser Asp His Gly Gln Thr Ser Ser Leu Trp Trp Lys Cys
85           90           95
Ser Gln Glu Gly Gly Gly Ser Gly Ser Tyr Glu Glu Gly Cys Gln Ser
100          105          110
Leu Met Glu Tyr Ala Trp Gly Arg Ala Ala Ala Ala Met Leu Phe Cys
115          120          125
Gly Phe Ile Ile Leu Val Ile Cys Phe Ile Leu Ser Phe Phe Ala Leu
130          135          140
Cys Gly Pro Gln Met Leu Val Phe Leu Arg Val Ile Gly Gly Leu Leu
145          150          155          160
Ala Leu Ala Ala Val Phe Gln Ile Ile Ser Leu Val Ile Tyr Pro Val
165          170          175
Lys Tyr Thr Gln Thr Phe Thr Leu His Ala Asn Pro Ala Val Thr Tyr
180          185          190
Ile Tyr Asn Trp Ala Tyr Gly Phe Gly Trp Ala Ala Thr Ile Ile Leu
195          200          205
Ile Gly Cys Ala Phe Phe Phe Cys Cys Leu Pro Asn Tyr Glu Asp Asp
210          215          220
Leu Leu Gly Asn Ala Lys Pro Arg Tyr Phe Tyr Thr Ser Ala
225          230          235

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<210> 175

<211> 4181

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

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4036, 4056, 4062, 4080, 4088, 4115

<223> n = A,T,C or G

<400> 175

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ttactgtgtt tgtgtat ttt aaaggcgaga agacgagggg aacaaaacca gctggatcca 180
tccatcaccg tgggtggttt taatttttcg ttttttctcg ttattttttt ttaaacaacc 240
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cctagaaaagt atcttcaagg acgccaagat cccggtgtcg ggacccttcc tgg tgaagac 360
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ttcaggtaaa atagaactgc acgggaaacc catagaagt gagcactcg tcccaaaaag 480
gcaaaggatt cggaaacttc agatacga tatcccgct catttacagt gggagtgct 540
ggatagttta ctagtccagt atggagtgg ggagagctgt gagcaagtga acactgactc 600
ggaaactgca gttgtaaatg taacctattc cagtaaggac caagctagac aagcactaga 660

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100070013001

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attgctaaaa	tcatggactg	gctttctggt	tggatttcag	gtaagatgtg	tttaaggcca	3840
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<210> 176
<211> 579
<212> PRT
<213> Homo sapiens
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Phe	Leu	Val	Lys	Thr	Gly	Tyr	Ala	Phe	Val	Asp	Cys	Pro	Asp	Glu	Ser	
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Trp	Ala	Leu	Lys	Ala	Ile	Glu	Ala	Leu	Ser	Gly	Lys	Ile	Glu	Leu	His	
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Arg	Lys	Leu	Gln	Ile	Arg	Asn	Ile	Pro	Pro	His	Leu	Gln	Trp	Glu	Val	
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Leu	Asp	Ser	Leu	Leu	Val	Gln	Tyr	Gly	Val	Val	Glu	Ser	Cys	Glu	Gln	
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Val	Asn	Thr	Asp	Ser	Glu	Thr	Ala	Val	Val	Asn	Val	Thr	Tyr	Ser	Ser	
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Lys	Asp	Gln	Ala	Arg	Gln	Ala	Leu	Asp	Lys	Leu	Asn	Gly	Phe	Gln	Leu	
	130					135					140					
Glu	Asn	Phe	Thr	Leu	Lys	Val	Ala	Tyr	Ile	Pro	Asp	Glu	Met	Ala	Ala	
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				165					170					175		
Arg	Gly	Ser	Ser	Arg	Gln	Gly	Ser	Pro	Gly	Ser	Val	Ser	Lys	Gln	Lys	
			180					185					190			
Pro	Cys	Asp	Leu	Pro	Leu	Arg	Leu	Leu	Val	Pro	Thr	Gln	Phe	Val	Gly	
		195					200					205				
Ala	Ile	Ile	Gly	Lys	Glu	Gly	Ala	Thr	Ile	Arg	Asn	Ile	Thr	Lys	Gln	
	210					215					220					
Thr	Gln	Ser	Lys	Ile	Asp	Val	His	Arg	Lys	Glu	Asn	Ala	Gly	Ala	Ala	
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Glu	Lys	Ser	Ile	Thr	Ile	Leu	Ser	Thr	Pro	Glu	Gly	Thr	Ser	Ala	Ala	
				245					250					255		
Cys	Lys	Ser	Ile	Leu	Glu	Ile	Met	His	Lys	Glu	Ala	Gln	Asp	Ile	Lys	
			260					265					270			
Phe	Thr	Glu	Glu	Ile	Pro	Leu	Lys	Ile	Leu	Ala	His	Asn	Asn	Phe	Val	
		275					280					285				
Gly	Arg	Leu	Ile	Gly	Lys	Glu	Gly	Arg	Asn	Leu	Lys	Lys	Ile	Glu	Gln	
	290					295					300					
Asp	Thr	Asp	Thr	Lys	Ile	Thr	Ile	Ser	Pro	Leu	Gln	Glu	Leu	Thr	Leu	
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Tyr	Asn	Pro	Glu	Arg	Thr	Ile	Thr	Val	Lys	Gly	Asn	Val	Glu	Thr	Cys	
				325					330				</			

Ala Lys Ala Glu Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu  
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 Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile Pro Gly Leu  
 355 360 365  
 Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro  
 370 375 380  
 Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Tyr Pro Gln Phe  
 385 390 395 400  
 Glu Gln Ser Glu Thr Glu Thr Val His Gln Phe Ile Pro Ala Leu Ser  
 405 410 415  
 Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser  
 420 425 430  
 Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp  
 435 440 445  
 Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe  
 450 455 460  
 Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val  
 465 470 475 480  
 Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro Ser  
 485 490 495  
 Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu  
 500 505 510  
 Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr  
 515 520 525  
 Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr  
 530 535 540  
 Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val  
 545 550 555 560  
 Lys Gln His Gln Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser  
 565 570 575  
 Arg Arg Lys

<210> 177  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 177  
 atgcccgta aatgtcttca gtgttcttca gggtagttag gatctcaaaa gatttggttc 60  
 agatccaaac aaatacacat tctgtgtttt agctcagtg tttctaaaaa aagaaactgc 120  
 cacacagcaa aaaattgttt actttgttgg acaaaccaaa tcagttctca aaaaatgacc 180  
 ggtgcttata aaaagttata aatatcgagt agctctaaaa caaaccacct gaccaagagg 240  
 gaagtgaagt tgtgcttagt atttacattg gatgccagtt ttgtaatcac tgacttatgt 300  
 gcaaaactgg gcagaaattc tataaactct ttgctgtttt tgatacctgc tttttgtttc 360  
 attttgtttt gttttgtaaa aatgataaaa cttcagaaaa t 401

<210> 178  
 <211> 561  
 <212> DNA  
 <213> Homo sapiens

<400> 178

```

acgcctttca aggggtgtacg caaagcactc attgataccc ttttgatgg ctatgaaaca 60
gcccgctatg ggacaggggt ctttggccag aatgagtacc tacgctatca ggaggccctg 120
agtgaagctg ccactgcggt taaagcacga attgggagct ctcagcgaca tcaccagtca 180
gcagccaaag acctaactca gtcccctgag gtctcccaa caaccatcca ggtgacatac 240
ctcccctcca gtcagaagag taaacgtgcc aagcacttcc ttgaattgaa gagctttaag 300
gataactata acacattgga gagtactctg tgacggagct gaaggactct tgccgtagat 360
taagccagtc agttgcaatg tgcaagacag gctgcttgcc gggccgcctt cggaacatct 420
ggcccagcag gcccagactg tatccatcca agttcccggt gtatccagag ttcttagagc 480
ttgtgtctaa agggtaattc cccaaccctt ccttatgagc atttttagaa cattggctaa 540
gactattttc cccagtagc g

```

<210> 179

<211> 521

<212> DNA

<213> Homo sapiens

<400> 179

```

cccaacgcgt ttgcaaatat tcccctggta gcctacttcc ttacccccga atattggtaa 60
gatcgagcaa tggcttcagg acatgggttc tcttctcctg tgatcattca agtgctcact 120
gcatgaagac tggcttgtct cagtgtttca acctcaccag ggctgtctct tgggtccacac 180
ctcgctccct gttagtgccg tatgacagcc cccatcaaat gaccttggcc aagtcacggt 240
ttctctgtgg tcaaggttgg ttggctgatt ggtggaaagt aggggtggacc aaaggaggcc 300
acgtgagcag tcagcaccag ttctgcacca gcagcgctc cgtcctagtg ggtgttctctg 360
tttctcctgg ccctgggtgg gctagggcct gattcgggaa gatgcctttg cagggagggg 420
aggataagtg ggatctacca attgattctg gcaaaacaat ttctaagatt tttttgcttt 480
atgtgggaaa cagatctaaa tctcatttta tgctgtattt t

```

<210> 180

<211> 417

<212> DNA

<213> Homo sapiens

<400> 180

```

ggtggaattc gccgaagatg gcggagggtc aggtcctggt gcttgatggt cgaggccatc 60
tcctgggccc cctggcgccc atcgtggcta aacaggtaact gctgggcccg aaggtgggtg 120
tcgtacgctg tgaaggcatc aacatttctg gcaatttcta cagaaacaag ttgaagtacc 180
tggcttttct ccgcaagcgg atgaacacca acccttcccg agggccctac cacttccggg 240
ccccagccg catcttctgg cggaccgtgc gaggtatgct gccccacaaa accaagcgag 300
gccaggccgc tctggaccgt ctcaagggtg ttgacggcat cccaccgcc tacgacaaga 360
aaaagcggat ggtggttcct gctgccctca aggtcgtgcg tctgaagcct acaagaa 417

```

<210> 181

<211> 283

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 35

<223> n = A,T,C or G

<400> 181

```

gatttcttct aaataggatg taaaacttct ttcanattac tcttctcag tcctgcctgc 60
caagaactca agtgtaactg tgataaaata acctttccca ggtatattgg caggtagtg 120

```



```

tgtaatctca gaatacacag gtgacataga tatgatatga caactggtaa tggtaggattc 180
atttacattg tttaaccttc tatgaccagg ccttaaggga aggtcagttt tttaaaaaac 240
caagtagtgt cttcctacct atctccagat acatgtcaaa aaa 283

```

<210> 182

<211> 401

<212> DNA

<213> Homo sapiens

<400> 182

```

atattcttgc tgcttatgca gctgacattg ttgccctccc taaagcaacc aagtagcctt 60
tatttcccac agtgaaagaa aacgctggcc tatcagttac attacaaaag gcagatttca 120
agaggattga gtaagtagtt ggatggcctt cataaaaaca agaattcaag aagaggattc 180
atgctttaag aaacatttgt tatacattcc tcacaaatta tacctgggat aaaaactatg 240
tagcaggcag tgtgttttcc ttccatgtct ctctgcacta cctgcagtgt gtccctctgag 300
gctgcaagtc tgctctatct gaattcccag cagaagcact aagaagctcc accctatcac 360
ctagcagata aaactatggg gaaaacttaa atctgtgcat a 401

```

<210> 183

<211> 366

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 325

<223> n = A,T,C or G

<400> 183

```

accgtgtcca agttttttaga acccttggtta gccagaccga ggtgtcctgg tcaccgtttc 60
accatcatgc tttgatgttc ccctgtcttt ctctcttctg ctctcaagag caaaggttaa 120
tttaaggaca aagatgaagt cactgtaaac taatctgtca ttgtttttac cttccttttc 180
tttttcagtg cagaaattaa aagtaagtat aaagcaccgt gattgggagt gtttttgcgt 240
gtgtcggaat cactggtaaa tgttggctga gaacaatccc tccccttgca cttgtgaaaa 300
cactttgagc gctttaagag attancctga gaaataatta aatatctttt ctcttcaaaa 360
aaaaaa 366

```

<210> 184

<211> 370

<212> DNA

<213> Homo sapiens

<400> 184

```

tcttacttca aaagaaaaat aaacataaaa aataagttgc tggttcctaa caggaaaaat 60
tttaataatt gtactgagag aaactgctta cgtacacatt gcagatcaaa tatttggagt 120
taaaatgtta gtctacatag atgggtgatt gtaactttat tgccattaaa agatttcaaa 180
ttgcattcat gcttctgtgt acacataatg aaaaatgggc aaataatgaa gatctctcct 240
tcagtctgct ctgtttaatt ctgctgtctg ctcttctcta atgctgcgtc cctaattgta 300
cacagtttag tgatatctag gagtataaag ttgtcgccca tcaataaaaa tcacaaagtt 360
ggtttaaaaa 370

```

<210> 185

<211> 107

<212> DNA

```
<220>  
<221> misc_feature  
<222> 76, 77  
<223> n = A,T,C or G
```

<400> 189  
 accatcttga cagaggatac atgctcccaa aacgtttgtt accacactta aaaatcactg 60  
 ccatcattaa gcatcnnttt caaaattata gccattcatg atttactttt tccagatgac 120  
 tatcattatt ctagtccctt gaatttgtaa ggggaaaaaa aacaaaaaca aaaacttacg 180  
 atgcactttt ctccagcaca tcagatttca aattgaaaat taaagacatg ctatggtaat 240  
 gcacttgcta gtactacaca ctttgtacaa caaaaaacag aggcaagaaa caacggaaaag 300  
 agaaaagcct tcctttgttg gcccttaaac tgagtcaaga tctgaaatgt agagatgatc 360  
 tctgacgata cctgtatgtt cttatttgtt aaataaaatt gctggtatga aatgaca 417

<210> 190  
 <211> 497  
 <212> DNA  
 <213> Homo sapiens

<400> 190  
 gcactgcggc gctctcccggt cccgcggtgg ttgctgctgc tgccgctgct gctgggcctg 60  
 aacgcaggag ctgtcattga ctggcccaca gaggagggca aggaagtatg ggattatgtg 120  
 acggtccgca aggatgccta catgttcttg tggtcttatt atgccacca ctcctgcaag 180  
 aacttctcag aactgcccct ggtcatgttg cttcagggcg gtccaggcgg ttctagcact 240  
 ggatttggaa actttgagga aattgggccc cttgacagt atctcaaacc acggaacc 300  
 acctggctcc aggtgccag tctcctatt gtggataat ccgtgggcac tgggttcagt 360  
 tatgtgaatg gtatgggtgc ctatgccaa gacctggcta tgggtggctt agacatgatg 420  
 gttctcctga agaccttctt cagttgccac aaagaattcc agacagttcc attctacatt 480  
 ttctcagagt cctatgg 497

<210> 191  
 <211> 175  
 <212> DNA  
 <213> Homo sapiens

<400> 191  
 atgttgaata ttttgcttat taactttgtt tattgtcttc tccctcgatt agaataattag 60  
 ctacttgagt acaaggattt gagcctgtta cattcactgc tgaatttttag gtccttgga 120  
 gatacccagc attcaataga gaccacaca taaatatatg tcaaataaaa aaaaa 175

<210> 192  
 <211> 526  
 <212> DNA  
 <213> Homo sapiens

<400> 192  
 agtaaacatt attatTTTTT ttatatttgc aaaggaaaca tatctaattc ttcctataga 60  
 aagaacagta ttgctgtaat tccttttctt ttcttcctca tttcctctgc cccttaaaag 120  
 attgaagaaa gagaaacttg tcaactcata tccacgttat ctacaaagt acataagaat 180  
 ctatcactaa gtaatgtatc cttcagaatg tgttggttta ccagtgcac cccatattca 240  
 tcacaaaatt aaagcaagaa gtccatagta atttatttgc taatagtga tttttaatgc 300  
 tcagagtttc tgagggtcaaa ttttatcttt tcacttacaa gctctatgat cttaataat 360  
 ttacttaatg tatttttgtg tattttcctc aaattaatat tgggtgtcaa gactatatct 420  
 aattcctctg atcactttga gaaacaaact tttattaaat gtaaggcact tttctatgaa 480  
 ttttaaatat aaaaataaat attgttctga ttattactga aaaaaa 526

<210> 193  
 <211> 553

<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 290, 300, 411, 441  
<223> n = A,T,C or G

<400> 193  
tccattgtgg tggaaattcgc tctctggtaa aggcgtgcag gtggttgccg cggcctctga 60  
gctgggatga gccgtgctcc cggtggaagc aaggagagccc agccggagcc atggccagta 120  
cagtggtagc agttggactg accattgctg ctgcaggatt tgcaggccgt tacgttttgc 180  
aagccatgaa gcatatggag cctcaagtaa aacaagtttt tcaaagccta ccaaaatctg 240  
ccttcagtgg tggctattat agaggtgggt ttgaacccaa aatgacaaan cgggaagcan 300  
cattaatact aggtgtaagc cctactgcc aataaaggaa aataagagat gctcatcgac 360  
gaattatgct tttaaatcat cctgacaaag gaggatctcc ttatatagca nccaaaatca 420  
atgaagctaa agatttacta naaggtcaag ctaaaaaatg aagtaaatgt atgatgaatt 480  
ttaagtctgt attagtttat gtatatgagt actaagtttt tataataaaa tgcctcagag 540  
ctacaatttt aaa 553

<210> 194  
<211> 320  
<212> DNA  
<213> Homo sapiens

<400> 194  
cccttcccaa tccatcagta aagaccccat ctgccttgct catgccgttt cccaacaggg 60  
atgtcacttg atatgagaat ctcaaactc aatgccttat aagcattcct tcctgtgtcc 120  
attaagactc tgataattgt ctcccctcca taggaatttc tcccaggaaa gaaatataatc 180  
cccatctccg ttcatatat gaactaccgt ccccgatatt cccttcagag agattaaaga 240  
ccagaaaaaa gtgagcctct tcatctgcac ctgtaatagt ttcagttcct attttcttcc 300  
attgacccat atttatacct 320

<210> 195  
<211> 320  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 203, 218  
<223> n = A,T,C or G

<400> 195  
aagcatgacc tggggaaatg gtcagacctt gtattgtgtt tttggccttg aaagtagcaa 60  
gtgaccagaa tctgccatgg caacaggctt taaaaaagac ccttaaaaag acactgtctc 120  
aactgtgggt ttagcaccag ccagctctct gtacatttgc tagctttag ttttctaaga 180  
ctgagtaaac ttcttatttt tanaaagggg aggctggnnt gtaactttcc ttgtacttaa 240  
ttgggtaaaa gtcttttcca caaacacca tctattttgt gaactttgtt agtcatcttt 300  
tatttggtaa attatgaact 320

<210> 196  
<211> 357  
<212> DNA

<210> 199

<400> 202

```
<210> 203
<211> 261
<212> DNA
<213> Homo sapiens
```

<400> 205						
tactctcaca	atgaaggacc	tggaatgaaa	aatctgtgtc	taaacaagtc	ctcttttagat	60
tttagtgcaa	atccagagcc	agcgtcggtt	gcctcgagta	attctttcat	gggtaccttt	120
ggaaaagctc	tcaggagacc	tcacctagat	gcctattcaa	gctttggaca	gccatcagat	180
tgtcagccaa	gagcctttta	tttgaaagct	cattctctcc	cagacttggg	ctctgggtca	240
gaggaagatg	ggaagaaaag	gacagactttt	caggaaagaa	atcacatttg	tacctttaaa	300
cagactttta	aaaactaca	gactccaaat	tttcagctctt	atgacttqga	cacataagact	360

```
<210> 206
<211> 481
<212> DNA
<213> Homo sapiens
```

```
<210> 207
<211> 605
<212> DNA
<213> Homo sapiens
```

```
<210> 208
<211> 655
<212> DNA
<213> Homo sapiens
```

<400> 208						
ggcgttgttc	tggattcccg	tcgtaactta	aagggaact	ttcacaatgt	ccggagccct	60
tgatgtcctg	caaatgaagg	aggaggatgt	cctaagttc	cttgacgcag	gaaccactt	120
aggtggcacc	aatcttgact	tccagatgga	acagtatcat	tataaaagga	aaagtgatgg	180
catctatatc	ataaaactca	agaggacctt	ggagaagctt	ctcgtggcag	ctcgtgcaat	240
tgttgccatt	gaaaaccctg	ctgatgtcag	tgttataatc	tccaggaata	ctggccagag	300
ggctgtgctg	aagtttgctg	ctgccactgg	agccactcca	attgctggcc	gcttcaactcc	360
tggaaccttc	actaaccaga	tccaggcagc	cttccgggag	ccacggcttc	ttgtggttac	420
tgaccccagg	gctgaccacc	agcctctcac	ggaggcatct	tatgttaacc	tacctaccat	480
tgcgctgtgt	aacacagatt	ctcctctcgc	ctatgtggac	attgccatcc	catgcaacaa	540
caaggagagt	cactcagttg	gtttgatgtg	gtggatgctg	gctcgggaag	ttctgcgcgt	600
gcctgcaccc	atttcccatg	aacacccatg	ggaggtcatg	cctgatctgt	acttc	655



<210> 209  
 <211> 621  
 <212> DNA  
 <213> Homo sapiens

<400> 209  
 catttagaac atggttatca tccaagacta ctctaccctg caacattgaa ctcccaagag 60  
 caaatccaca ttctctttga gttctgcagc ttctgtgtaa atagggcagc tgtcgtctat 120  
 gccgtagaat cacatgatct gaggaccatt catggaagct gctaaatagc ctagtctggg 180  
 gagtcttcca taaagttttg catggagcaa acaaacagga ttaaactagg ttgtgttctt 240  
 tcagccctct aaaagcatag ggcttagcct gcaggcttcc ttgggctttc tctgtgtgtg 300  
 tagttttgta aacactatag catctgttaa gatccagtgt ccatggaaac cttcccacat 360  
 gccgtgactc tggactatat cagtttttg aaagcagggt tcctctgcct gctaacaagc 420  
 ccacgtggac cagtctgaat gtctttcctt tacacctatg tttttaaata gtcaaacttc 480  
 aagaaacaat ctaaacaagt ttctgttgca tatgtgtttg tgaacttgta tttgtattta 540  
 gtaggcttct atattgcatt taacttgttt ttgtaactcc tgattcttcc ttttcggata 600  
 ctattgatga ataaagaaat t 621

<210> 210  
 <211> 533  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 20, 21, 61  
 <223> n = A,T,C or G

<400> 210  
 cgccttgggg agccggcggn ngagtccggg acgtggagac ccgggggtccc ggcagccggg 60  
 nggcccgcgg gcccagggtg gggatgcacc gccgcggggg gggagctggc gccatcgcca 120  
 agaagaaact tgcagaggcc aagtataagg agcagaggac ggtcttggct gaggaccagc 180  
 tagcccagat gtcaaagcag ttggacatgt tcaagaccaa cctggaggaa ttgcccagca 240  
 aacacaagca ggagatccgg aagaatcctg agttccgtgt gcagttccag gacatgtgtg 300  
 caaccattgg cgtggatccg ctggcctctg gaaaaggatt ttggtctgag atgctgggcg 360  
 tgggggactt ctattacgaa ctagggtgcc aaattatcga agtgtgcctg gcgctgaagc 420  
 atcggaatgg aggtctgata actttggagg aactacatca acaggtgttg aagggaaggg 480  
 gcaagttcgc ccaggatgtc agtcaagatg acctgatcag agccatcaag aaa 533

<210> 211  
 <211> 451  
 <212> DNA  
 <213> Homo sapiens

<400> 211  
 ttagcttgag ccgagaacga ggcgagaaag ctggagaccg aggagaccgc ctagagcgga 60  
 gtgaacgggg aggggaccgt ggggaccggc ttgatcgtgc gcggacacct gctaccaagc 120  
 ggagcttcag caaggaagtg gaggagcgga gtagagaacg gccctcccag cctgaggggc 180  
 tgcgcaaggc agctagcctc acggaggatc gggaccgtgg gcgggatgcc gtgaagcgag 240  
 aagctgccct acccccagtg agcccctga aggcggctct ctctgaggag gagttagaga 300  
 agaaatccaa ggctatcatt gaggaatata tccatctcaa tgacatgaaa gaggcagtc 360  
 agtgcgtgca ggagctggcc tcaccctcct tgctcttcat ctttgtacgg catgggtgtc 420  
 agtctacgct ggagcgcagt gccattgctc g 451

<210> 212  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 54  
 <223> n = A,T,C or G

<400> 212  
 gtgattattc ttgatcaggg agaagatcat ttagatttgt tttgcattcc ttanaatgga 60  
 gggcaacatt ccacagctgc cctggctgtg atgagtgtcc ttgcaggggc cggagtagga 120  
 gcaactgggt gggggcggaa ttggggttac tcgatgtaag ggattccttg ttgttgtgtt 180  
 gagatccagt gcagttgtga tttctgtgga tcccagcttg gttccaggaa ttttgtgtga 240  
 ttggcttaaa tccagttttc aatcttcgac agctgggctg gaacgtgaac tcagtagctg 300  
 aacctgtctg acccggtcac gttcttggat cctcagaact ctttgctctt gtcgggggtg 360  
 ggggtgggaac tcacgtgggg agcgggtggc gagaaaatgt aaggattctg gaatacatat 420  
 tccatgggac tttccttccc tctcctgctt cctcttttcc tgctccctaa c 471

<210> 213  
 <211> 511  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 27, 63, 337, 442  
 <223> n = A,T,C or G

<400> 213  
 ctaattagaa acttgctgta ctttttnttt tcttttaggg gtcaaggacc ctctttatag 60  
 ctncattttg cctacaataa attattgcag cagtttgcaa tactaaaata ttttttatag 120  
 actttatatt tttccttttg ataaagggat gctgcatagt agagttggtg taattaaact 180  
 atctcagccg tttccctgct ttcccttctg ctccatagtc ctcatgtgcc ttccaggag 240  
 ctcttttaat cttaaagttc tacatttcat gctcttagtc aaattctgtt acctttttaa 300  
 taactcttcc cactgcataa ttccatcttg aattgnggt tctaaattct gaaactgtag 360  
 ttgagataca gctatttaat atttctggga gatgtgcatc cctcttcttt gtggttgccc 420  
 aaggttgttt tgcgtaactg anactccttg atatgcttca gagaatttag gcaaactg 480  
 gccatggccg tgggagtact gggagtaaaa t 511

<210> 214  
 <211> 521  
 <212> DNA  
 <213> Homo sapiens

<400> 214  
 agcattgcc aataatccct aattttccac taaaaatata atgaaatgat gttaagcttt 60  
 ttgaaaagtt taggttaaac ctactgttgt tagattaatg tatttgttgc ttccctttat 120  
 ctggaatgtg gcattagctt tttatttta accctctta attcttattc aattccatga 180  
 ctttaagggtg gagagctaaa cactgggatt ttgggataac agactgacag ttttgcataa 240  
 ttataatcgg cattgtacat agaaaggata tggctacctt ttgttaaatc tgcactttct 300  
 aaatatcaaa aaagggaaat gaagtataaa tcaatttttg tataatctgt ttgaaacatg 360

```
<210> 218
<211> 405
<212> DNA
<213> Homo sapiens
```

<400> 218  
caggccttcc agttcactga caaacatggg gaagtgtgcc cagctggctg gaaacctggc 60  
agtataacca tcaagcctga tgtccaaaag agcaaagaat atttctccaa gcagaagtga 120  
gcgctgggct gtttttagtg caggctgcgg tgggcagcca tgagaacaaa acctcttctg 180  
tatttttttt ttccattagt aaaacacaag acttcagatt cagccgaatt gtggtgtctt 240  
acaaggcagg cctttcctac aggggggtgga gagaccagcc tttcttcctt tggtaggaat 300  
ggcctgagtt ggcgttgtgg gcaggctact ggtttgtatg atgtattagt agagcaaccc 360  
attaatcttt tgtagtgtgt attaaacttg aactgagaaa aaaaa 405

<210> 219  
<211> 216  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 207, 210  
<223> n = A,T,C or G

<400> 219  
actccaagag ttagggcagc agagtggagc gatttagaaa gaacatttta aaacaatcag 60  
ttaattttacc atgtaaaatt gctgtaaatg ataattgtga cagattttct gttcaaata 120  
tcaattgtaa acttcttggt aagactgtta cgtttctatt gcttttgtat gggatattgc 180  
aaaaataaaa aggaaagaac cctcttnaan aaaaaa 216

<210> 220  
<211> 380  
<212> DNA  
<213> Homo sapiens

<400> 220  
cttacaaatt gcccccatgt gtaggggaca cagaaccctt tgagaaaact tagatttttg 60  
tctgtacaaa gtctttgcct ttttccttct tcattttttt ccagtacatt aaatttgtca 120  
atttcattct tgagggaac tgattagatg ggttgtgttt gtgttctgat ggagaaaaca 180  
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tgaggaggag	cgaaagtggg	gctttagccg	agtcagctca	ggaggctcct	tttcagtgt	7260
gggagttcca	gctggccccc	accctgatgt	gtttccacca	tgcaaaatta	ttgacctgga	7320
agctgtaaaa	gtagaagag	aattgaccct	atcttgga	gcacctggag	aagactttga	7380
tcagggccag	tgtaacaagt	atgaaataag	aattgagtaa	agctctacaga	aatccaaga	7440
tgactttaac	aatgctattt	tagtaaatat	atcaaaagca	aatcctcagc	aagctggcat	7500

```

cagggagata tttacgttct ccccccaaat ttccacgaat ggacctgaac atcagccaaa 7560
tggagaaaca catgaaagcc acagaattta tgttgcaata cgagcaatgg ataggaactc 7620
cttacagtct gctgtatcta acattgcccc ggcgctctg tttattcccc ccaattctga 7680
tcctgtacct gccagagatt atcttatatt gaaaggagtt ttaacagcaa tgggtttgat 7740
aggaatcatt tgccttatta tagttgtgac acatcatact ttaagcagga aaaagagagc 7800
agacaagaaa gagaatggaa caaaattatt ataatgaatt ctgcagatat ccatcacact 7860
ggcgcccgct cgagcaccac caccaccacc actgagatcc ggctgctaac aaagcccga 7920
aggaagctga gttggctgct gccaccgctg agcaataact agcataaccc cttggggcct 7980
ctaaacgggt cttgaggggt tttttgctga aaggaggaac tatatccgga t 8031

```

```

<210> 255
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 9, 67, 247, 275, 277, 397
<223> n = A,T,C or G

```

```

<400> 255
gtggccagng actagaaggc gaggcgccgc gggaccatgg cggcggcggc ggacgagcgg 60
agtccanagg acggagaaga cgaggaagag gaggagcagt tggttctggt ggaattatca 120
ggaattattg attcagactt cctctcaaaa tgtgaaaata aatgcaagg tttgggcatt 180
gacactgaga ggcccattct gcaagtggac agctgtgtct ttgctgggga gtatgaagac 240
actctangga cctgtgttat atttgaagaa aatgntnaac atgctgatac agaaggcaat 300
aataaaacag tgctaaaata taaatgccat acaatgaaga agctcagcat gacaagaact 360
ctcctgacag agaagaagga aggagaagaa aacatangtg g 401

```

```

<210> 256
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 7, 37, 51, 79, 96, 98, 103, 104, 107, 116, 167, 181, 183,
194, 206, 276, 303, 307, 308, 310, 323, 332, 341, 353, 374,
376
<223> n = A,T,C or G

```

```

<400> 256
tggtggncc tggatgggga accgcggtgg cttccgngga ggtttcggca ntggcatccg 60
gggccggggt cgcgggcgng gacggggccg ggcccnangc cgnnganctc gcggangcaa 120
ggccgaggat aaggagtgga tgcccgtcac caacttgggc cgcttgncca aggacatgaa 180
nancaagccc ctgnaggaga tctatntctt cttccctgcc ccattaagga atcaagagat 240
catttgatgt cttcctgggg gcctctctca aggatnaggt ttttgaagat tatgccagtg 300
canaaannan accccgttgc ccngtccatc tncaccaaac ncttccaagg gcnatttttg 360
tttaggcctc attncngggg ggaaccttaa cccaatttgg g 401

```

```

<210> 257
<211> 401

```



<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 382, 387  
<223> n = A,T,C or G

<400> 257  
atgtatgtaa aacacttcat aaaatgtaaa gggctataac aaatatgtta taaagtgatt 60  
ctctcagccc tgaggtatac agaatcattt gcctcagact gctgttggat tttaaaattt 120  
ttaaataatc tgctaagtaa tttgctatgt cttctccac actatcaata tgcctgcttc 180  
taacaggctc cccactttct tttaatgtgc tgttatgagc tttggacatg agataaccgt 240  
gcctgttcag agtgtctaca gtaagagctg gacaaactct ggagggacac agtctttgag 300  
acagctcttt tggttgcttt ccacttttct gaaaggttca cagtaacctt ctagataata 360  
gaaactccca gttaaagcct angctancaa ttttttttag t 401

<210> 258  
<211> 401  
<212> DNA  
<213> Homo sapiens

<400> 258  
ggagcgctag gtcggtgtac gaccgagatt aggggtgcgtg ccagctccgg gagggccgcg 60  
tgagggggccg ggcccaagct gccgacccga gccgatcgtc agggtcgcca gcgcctcagc 120  
tctgtggagg agcagcagta gtcggagggg gcaggatatt agaaatggct actccccagt 180  
caattttcat ctttgcaatc tgcattttta tgataacaga attaatcttg gcctcaaaaa 240  
gctactatga tatcttaggt gtgccaaaat cggcatcaga gcgccaaatc aagaaggcct 300  
ttcacaagtt ggccatgaag taccaccctg acaaaaataa gaccagatg ctgaagcaaa 360  
attcagagag attgcagaag catatgaaac actctcagat g 401

<210> 259  
<211> 401  
<212> DNA  
<213> Homo sapiens

<400> 259  
attgggtttg gagggaggat gatgacagag gaatgccctt tggccatcac ggttttgatt 60  
ctccagaata ttgtgggttt gatcatcaat gcagtcattg taggctgcat tttcatgaaa 120  
acagctcagg ctacagaag ggcagaaact ttgattttca gccgccatgc tgtgattgcc 180  
gtccgaaatg gcaagctgtg cttcatgttc cgagtgggtg acctgaggaa aagcatgac 240  
attagtgcct ctgtgcgcat ccaggtgggtc aagaaaacaa ctacacctga aggggagggtg 300  
gttcctattc accaactgga cattcctgtt gataacccaa tcgagagcaa taacattttt 360  
ctggtggccc ctttgatcat ctgccacgtg attgacaagc g 401

<210> 260  
<211> 363  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 7, 9, 19, 41, 63, 73, 106, 111, 113, 116, 119, 156, 158,  
162, 187, 247, 288, 289, 290, 292, 298, 299, 300, 340

```
<210> 261
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<210> 262
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<210> 263
<211> 401
<212> DNA
<213> Homo sapiens
```



```

<400> 266
attcataaat ttagctgaaa gatactgatt caatttgtat acagngaata taaatgagac 60
gacagcaaaa ttttcatgaa atgtaaaata tttttatagt ttgttcatac tatatgaggt 120
tctattttta atgactttct ggattttaaa aaatttcttt aaatacaatc atttttgtaa 180
tatttatttt atgcttatga tctagataat tgcagaatat cattttatct gactctgtct 240
tcataagaga gctgtggccg aattttgaac atctgttata gggagtgatc aaattagaag 300
gcaatgtgga aaaacaattc tgggaaagat ttctttatat gaagtccctg ccactagcca 360
gccatcctaa ttgatgaaag ttatctgttc acaggcctgc a 401

```

```

<210> 267
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> misc_feature
<222> 116, 247, 277, 296, 307, 313, 322, 323, 336, 342, 355, 365,
377, 378, 397
<223> n = A,T,C or G

```

```

<400> 267
gaagaggcat cacctgatcc cggagacctt tggagttaag aggcggcgga agcgagggcc 60
tgtggagtcg gatcctcttc ggggtgagcc agggtcggcg cgcgcggctg tctcanaact 120
catgcagctg ttcccgcgag gcctgtttga ggacgcgctg ccgcccatcg tgctgaggag 180
ccaggtgtac agccttgtgc ctgacaggac cgtggccgac cggcagctga aggagcttca 240
agagcanggg gagacaaaat cgtccagctg ggcttnact tggatgcccc tggaaattat 300
tctttcnctt ganggaacta cnngggaccc aagaanccct tncaaggggc ccttngtgga 360
tgggncccg aaccccnnta tttgcccttg ggggggncca a 401

```

```

<210> 268
<211> 223
<212> DNA
<213> Homo sapiens

```

```

<400> 268
tcgccatgtt ggccaggctg gtcttgaact cctgacttta agtgatccac ccgcctcaac 60
ctcccaaagt gctgggatta caggtgtgag ccaccgcgcc tggcctgata catactttta 120
gaatcaagta gtcacgcact ttttctgttc atttttctaa aaagtaaata tacaaatgtt 180
ttgttttttg ttttttttgt ttgtttgttt ctgttttttt ttt 223

```

```

<210> 269
<211> 401
<212> DNA
<213> Homo sapiens

```

```

<400> 269
actatgtaaa ccacattgta ctttttttta ctttggcaac aaatatttat acatacaaga 60
tgctagttca tttgaatatt tctcccaact tatccaagga tctccagctc taacaaaatg 120
gtttattttt atttaaattg caatagttgt tttttaaaat ccaaatcaga ggtgcaggcc 180
accagttaaa tgccgtctat caggttttgt gccttaagag actacagagt caaagctcat 240
ttttaaagga gtaggacaaa gttgtcacag gtttttggtg ttgtttttat tgcccccaaa 300
attacatgtt aatttccatt tatatcaggg attctattta cttgaagact gtgaagttgc 360
cattttgtct cattgttttc tttgacataa ctaggatcca t 401

```

<400> 272  
 nggctgntaa cntcgagggt nacttcctgg actatcctgg agacccccctc cgcttccacg 60  
 nncatnatat cncctcatngc tggggcccntn angacacnat ccactccaa cacctgngng 120



<211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 11  
 <223> n = A,T,C or G

<400> 276  
 tctgatattg ntacccttga gccacctaag ttagaagaaa ttggaaatca agaagttgtc 60  
 attgttgaag aagcacagag ttcagaagac tttaacatgg gctcttcctc tagcagccag 120  
 tatactttct gtcagccaga aactgtatct tcatctcagc ctagtgtatga tgaatcaagt 180  
 agtgatgaaa ccagtaataca gccacgtcct gccttttagac gacgccgtgc taggaagaag 240  
 accgtttctg cttcagaatc tgaagaccgg ctagtgtgtg aacaagaaac tgaaccttct 300  
 aaggagttga gtaaactgtc gttcagtagt ggtctcaata agtgtgttat acttgctttg 360  
 gtgattgcaa tcagcatggg atttgccat ttctatggca c 401

<210> 277  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 227, 333  
 <223> n = A,T,C or G

<400> 277  
 aactttggca acatatctca gcaaaaacta cagctatggt attcatgccca aaataaaagc 60  
 tgtgcagagg agtggctgca atgaggtcac aacggtggtg gatgtaaaag agatcttcaa 120  
 gtctctatca cccatccctc gaactcaagt cccgctcatt acaaattctt cttgccagtg 180  
 tccacacatc ctgccccatc aagatgttct catcatgtgt tacgagnggc gctcaaggat 240  
 gatgcttctt gaaaattgct tagttgaaa atggagagat cagcttagta aaagatccat 300  
 acagtgggaa gagaggctgc aggaacagcg ganaacagtt caggacaaga agaaaacagc 360  
 cgggcgcacc agtcgtagta atcccccaa accaaaggga a 401

<210> 278  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> 322, 354  
 <223> n = A,T,C or G

<400> 278  
 aatgagtgtg agaccacaaa tgaatgccgg gaggatgaaa tgtgttgga ttatcatggc 60  
 ggcttccgtt gttatccacg aaatccttgt caagatccct acattctaac accagagaac 120  
 cgatgtgttt gccagtcctc aaatgccatg tgccgagaac tgcccagtc aatagtctac 180  
 aaatacatga gcatccgatc tgataggtct gtgccatcag acatcttcca gatacaggcc 240  
 acaactatct atgccaacac catcaatact tttcggatta aatctggaaa tgaaaatgga 300  
 gagtctacct acgacaacaa anccctgtaa gtgcaatgct tgtgtctgtg aagncattat 360

1000700-1300

caggaccaag agaacatatac gtggacctgg agatgctgac a 401

<210> 279

<211> 401

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 30, 35, 81, 88, 180, 212, 378, 384, 391

<223> n = A,T,C or G

<400> 279

```
aaattattgc ctctgataca tacctaagtn aacanaacat taatacctaa gtaaacataa 60
cattacttgg agggttgcag nttctaantg aaactgtatt tgaaactttt aagtatactt 120
taggaaacaa gcatgaacgg cagtctagaa taccagaaac atctacttgg gtagcttggn 180
gccattatcc tgtggaatct gatatgtctg gnagcatgtc attgatggga catgaagaca 240
tctttggaaa tgatgagatt atttcctgtg ttaaaaaaaaa aaaaaatcct aaattcctac 300
aatgtgaaac tgaaactaat aattttgatc ctgatgtatg ggacagcgta tctgtaccag 360
gctctaaata acaaaagnta gggngacaag nacatgttcc t 401
```

<210> 280

<211> 326

<212> DNA

<213> Homo sapiens

<400> 280

```
gaagtgggaat tgtataattc aattcgataa ttgatctcat gggctttccc tggaggaaag 60
gttttttttg ttgttttttt ttttaagaact tgaaacttgt aaactgagat gtctgtagct 120
tttttgccca tctgtagtgt atgtgaagat ttcaaaacct gagagcactt tttctttggt 180
tagaattatg agaaaggcac tagatgactt taggatttgc atttttccct ttattgcctc 240
atttcttggt acgccttggt ggggagggaa atctgtttat tttttcctac aaataaaaaag 300
ctaagattct atatcgcaaa aaaaaa 326
```

<210> 281

<211> 374

<212> DNA

<213> Homo sapiens

<400> 281

```
caacgcgttt gcaaatattc ccctggtagc ctacttcctt acccccgaat attggtgaaga 60
tcgagcaatg gcttcaggac atgggttctc ttctcctgtg atcattcaag tgctcactgc 120
atgaagactg gcttgtctca gtgtttcaac ctcaccaggg ctgtctcttg gtccacacct 180
cgctccctgt tagtgccgta tgacagcccc catcaaata ccttggccaa gtcacgggtt 240
ctctgtggtc aaggttgggt ggctgattgg tggaaaagtag ggtggaccaa aggaggccac 300
gtgagcagtc agcaccagtt ctgcaccagc agcgcctccg tcctagtggg tgttcctggt 360
tctcctggcc ctgg 374
```

<210> 282

<211> 404

<212> DNA

<213> Homo sapiens

<220>



```
<210> 285
<211> 361
<212> DNA
<213> Homo sapiens
```

<210>	288
<211>	358
<212>	DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 39, 143, 226

<223> n = A,T,C or G

<400> 288

```
aagtttttaa actttttatt tgcatattaa aaaaattgng cattccaata attaaaaatca 60
tttgaacaaa aaaaaaaatg gcactctgat taaactgcat tacagcctgc aggacacctt 120
gggccagctt ggttttactc tanatttcac tgtcgtccca cccacttct tccacccac 180
ttcttccttc accaacaatgc aagttctttc cttccctgcc agccanatag atagacagat 240
gggaaaggca ggcgcggcct tcgttgtcag tagttctttg atgtgaaagg ggcagcacag 300
tcatttaaac ttgatccaac ctctttgcat cttacaaagt taaacagcta aaagaagt 358
```

<210> 289

<211> 462

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 87, 141, 182, 220, 269, 327

<223> n = A,T,C or G

<400> 289

```
ggcatcagaa atgctgttta tttctctgct gctcccaagc tggttgccct ttgcagagga 60
gcagacaaca gatgcatagt tgggganaaa gggaggacag gttccaggat agagggtgca 120
ggctgaggga ggaagggtaa naggaaggaa ggccatcctg gatccccaca tttcagtctc 180
anatgaggac aaagggactc ccaagccccc aaatcatcan aaaacaccaa ggagcaggag 240
gagcttgagc aggcccccagg gagcctcana gccataccag ccactgtcta cttcccatcc 300
tcctctccca ttccctgtct gcttcanacc acctcccagc taagccccag ctccattccc 360
ccaatcctgg cccttgccag cttgacagtc acagtgcctg gaattccacc actgaggctt 420
ctcccagttg gattaggacg tcgccctggt agcatgctgc cc 462
```

<210> 290

<211> 481

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 44, 57, 122, 158, 304, 325, 352, 405

<223> n = A,T,C or G

<400> 290

```
tactttccta aactttatta aagaaaaaag caataagcaa tggnggtaaa tctctanaac 60
atacccaatt ttctgggctt cctccccga gaatgtgaca ttttgatttc caaacatgcc 120
anaagtgtat gttcccaac tgtactaaag taggtganaa gctgaagtcc tcaagtgttc 180
atcttccaac ttttcccagt ctgtggtctg tctttggatc agcaataatt gcctgaacag 240
ctactatggc ttogttgatt tttgtctgta gctctctgag ctctctatg tgcagcaatc 300
gcanaatttg agcagcttca ttaanaactg catctcctgt gtcaaaaacca anaatatgtt 360
tgtctaaagc aacaggtaaag ccctcttttg tttgatttgc cttancaact gcatcctgtg 420
tcaggcgctc ctgaaccaa atccgaattg ccttaagcat taccaggtaa tcatcatgac 480
```

481

<400> 293  
gatttaaaag aaaacacttt attgttcagc aattaaaagt tagccaaata tgtatttttc 60  
tccataattt attgngatgt tatcaacatc aagtaaaatg ctcatTTtca tcatttgctt 120  
ctgttcatgt tttcttgaac acgtcttcaa ttttccttcc aaaatgctgc atgccacact 180



```
tattttctcta ctttgccctc ctgatgccca catgananaa cttaanataa tttctaacag 120
cttcactttt ggaaaaaaa aaaacctgtt ttctcatgg aaccccagga gttgaaagtg 180
gatanatcgc tctcaaaatc taaggctctg ttcagcttta cattatgtta cctgacgttt 240
t                                                    241
```

```
<210> 297
<211> 391
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 12, 130
<223> n = A,T,C or G
```

```
<400> 297
gttgtggtg anaatgctg agatgctcag ttctctccct cacaaggtag gccacaaatt 60
cttggtggtg cctcacatc tggggctctc aggcaccagc catgcctgcc gaggagtgtc 120
gtcaggacan accatgtccg tgctaggccc aggcacagcc caaccactcc tcatccaagt 180
ctctcccagg tttctggtcc cgatgggcaa ggatgacccc tccagtggct ggtacccac 240
catcccacta cccctcacat gctctcactc tccatcaggt ccccaatcct ggcttcctc 300
ttcacgaact ctcaaagaa aggaaggata aaacctaat aaaccagaca gaagcagctc 360
tgaaaaagta caaaaagaca gccagagggtg t 391
```

```
<210> 298
<211> 321
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 14, 30, 76, 116, 201, 288, 301
<223> n = A,T,C or G
```

```
<400> 298
caagccaaac tgtntccagc tttattaaan atactttcca taaacaatca tggatatttc 60
ggcaggacat gggcanacaa tcgttaacag tatacaacaa ctttcaaact ccctntttca 120
atggactacc aaaaatcaaa aagccactat aaaacccaat gaagtcttca tctgatgtc 180
tgaacaggga aagtttaaag ngaggggtga catttcacat ttagcatgtt gttaacaac 240
ttttcacaag ccgacctga ctttcaggaa gtgaaatgaa aatggcanaa tttatctgaa 300
natccacaat ctaaaaatgg a 321
```

```
<210> 299
<211> 401
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> 104, 268, 347
<223> n = A,T,C or G
```

```
<400> 299
tatcataaag agtgttgaag tttatttatt atagcaccat tgagacattt tgaaattgga 60
```

```
<210> 300
<211> 188
<212> DNA
<213> Homo sapiens
```

<400>	300						
tgaatgcttt	gtcatattaa	gaaagttaaa	gtgcaataat	gtttgaanac	aataagtgg	60	
ggtgtatctt	gtttctaata	agataaaactt	ttttgtcttt	gctttatctt	attagggagt	120	
tgtatgtcag	tgtataaaac	atactgtgtg	gtataacagg	cttaataaat	tctttaaaag	180	
gaaaaaaa						188	

```

<400> 301
aagatttttgt tttattttat tatggctaga aagacactgt tatagccaaa atcggcaatg 60
acactaaaga aatcctctgt gcttttcaat atgcaaatat atttctcca agagttgcc 120
tggtgtgact tcaagagttc atgttaactt cttttctgga aacttccttt tcttagttgt 180
tgtattcttg aagagcctgg gccatgaaga gcttgcctaa gttttgggca gtgaactcct 240
tqtatgttctg cgaqtaagtq tttattctggc ctgcaatgag cagcgaagtc a 291

```

```
<210> 302
<211> 341
<212> DNA
<213> Homo sapiens
```

```
<220>  
<221> misc_feature  
<222> 25  
<223> n = A,T,C or G
```

<400> 302						
tgattttttca	taatttttatt	aaatnatcac	tgggaaaact	aatggttcgc	gtatcacaca	60
attacactac	aatctgatag	gagtggtaaa	accagccaat	ggaatccagg	taaagtacaa	120
aaacgccacc	ttttattgtc	ctgtcttatt	tctcgggaag	gagggttcta	ctttacacat	180
ttcatgagcc	agcagtgga	ttgagttaca	atgtcttagt	tccttgtgg	tatagctgca	240
gaagaagcca	tcaaattctt	gaggacttga	catctctcgg	aaagaagcaa	actagtggat	300
ccccqggct	qcaaggaattc	gatatcaaqc	ttatcgatac	c		341

<210> 303

```

<400> 305
ganaggctag taacatcagt ttatttgggt tggggngggca accatagcct ggctgggggn 60
ggggctggcc ctacaggtt gttagtctc agcagggtct ggtccaaggt ctggtgaatc 120
tcgacgttct cctccttggc actggccaag gtctcttcta ggtcatcgat ggttttctcc 180
aactttgcc aacacctctc tgcaaaactc gctcgggtct cancctcctt cagcttctcc 240
tccaacaggt tgatctcttc ttcatattta tcttctttgg gggaatactc ctctctgag 300
gccatcaggg acttgagggc ctggtccatg g
331

```



<210> 306  
 <211> 457  
 <212> DNA  
 <213> Homo sapiens

<400> 306  
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 agcagtgcaa aatttaaagg actgttttgt tctcaaagtt gcaagtttca aagccaaaag 120  
 aattatatgt atcaaataa taagtaaaaa aaagttagac tttcaagcct gtaatcccag 180  
 cactttggga ggctgaggca ggtggatcac taacattaaa aagacaacat tagattttgt 240  
 cgatttatag caattttata aatatataac tttgtcactt ggatcctgaa gcaaaaataat 300  
 aaagtgaatt tgggattttt gtacttggtt aaaagtttaa caccctaaat tcacaactag 360  
 tggatccccc gggctgcagg aattcgatat caagcttatc gataccgtcg acctcgaggg 420  
 ggggcccggt acccaattcg ccctatagtg agtcgta 457

<210> 307  
 <211> 491  
 <212> DNA  
 <213> Homo sapiens

<400> 307  
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 gcgcagccac cgccgcgcgc gccgcctctc cttagtcgcc gccatgacga ccgcgtccac 180  
 ctgcaggtg cgccagaact accaccagga ctcagaggcc gccatcaacc gccagatcaa 240  
 cctggagctc tacgcctcct acgtttacct gtccatgtct tactactttg accgcgatga 300  
 tgtggtttg aagaactttg ccaataactt tcttcaccaa tctcatgagg agagggaaaca 360  
 tgctgagaaa ctgatgaagc tgcagaacca acgaggtggc cgaatcttcc ttcaggatat 420  
 caagaaacca gactgtgatg actgggagag cgggctgaat gcaatggagt gtgcattaca 480  
 tttgaaaaa a 491

<210> 308  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<400> 308  
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 aggccctgga tgtgatggtg tccaccttcc acaagtactc gggcaaagag ggtgacaagt 120  
 tcaagctcaa caagtcagaa ctaaaggagc tgctgacccg ggagctgccc agcttcttgg 180  
 ggaaaaggac agatgaagct gctttccaga agctgatgag caacttggac agcaacaggg 240  
 acaacgaggt ggacttccaa gactactgtg tcttcctgtc ctgcatcgcc atgatgtgta 300  
 acgaattctt tgaaggcttc ccagataagc agcccaggaa gaaatgaaaa ctctctgat 360  
 gtggttgagg ggtctgccag ctggggccct ccctgtcgcc agtgggcact ttttttttc 420  
 c 421

<210> 309  
 <211> 321  
 <212> DNA  
 <213> Homo sapiens

<400> 309  
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 tggggaaccg cggtggcttc cgcgagggtt tcggcagtgg catccggggc cggggtcgcg 120

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<400> 313
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tggcgctccc atggctcttg caacatctcc cttctgtttt tgaggggggc atgccggggg 120
agccaccagc cctcactggg gttcggagga gqtcaggaa gggccaagca cgacaaagca 180
```

<400> 317  
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gctgctggct tgcagtgcgc gtgcacgtgg agagctggtg cccggagatt ggacggcctg 120

atgtctccctc ccttgccctg gtccagggaa gctggccgag ggtcctggct cctgaggggc 180  
atctgcccct ccccca 196

<210> 318  
<211> 381  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> 8, 9, 102, 122, 167, 182, 193, 235, 253, 265, 266, 290, 321,  
378  
<223> n = A,T,C or G

<400> 318  
gacgcttng ccgtaacgat gatcggagac atcctgctgt tcgggacgtt gctgatgaat 60  
gccggggcgg tgctgaactt taagctgaaa aagaaggaca cncagggctt tggggaggag 120  
tncagggagc ccaacacagg tgacaacatc cgggaattct tgctgancct cagatacttt 180  
cnaatcttca tcnccctgtg gaacatcttc atgatgttct gcatgattgt gctgntcggc 240  
tcttgaatcc cncgatgaa accannaact cactttcccg ggatgccgan tctccattcc 300  
tccattcctg atgacttcaa naatgttttt gaccaaaaaa ccgacaacct tcccagaaag 360  
tccaagctcg tgggtggngg a 381

<210> 319  
<211> 506  
<212> DNA  
<213> Homo sapiens

<400> 319  
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tttgtaaata cctttgttat aattgatagg atacatcttg gacatggaat tgttaagcca 120  
cctctgagca gtgtatgtca ggacttggtc attaggttgg cagcagaggg gcagaaggaa 180  
ttatacaggc agagatgtat gcagatgtgt ccatatatgt ccatatttac attttgatag 240  
ccattgatgt atgcatctct tggctgtact ataagaacac attaatcaa tggaaatata 300  
ctttgcta attttaattg tatagatctg ctaatgaatt ctcttaaaaa cactactgtat 360  
tctgttgctg tgtgtttcat tttaaattga gcattaaggg aatgcagcat ttaaatacaga 420  
actctgccaa tgcttttatc tagaggcgtg ttgccatttt tgtcttatat gaaatttctg 480  
tcccaagaaa ggcaggatta catctt 506

<210> 320  
<211> 351  
<212> DNA  
<213> Homo sapiens

<400> 320  
ctgacctgca ggacgaaacc atgaagagcc tgatccttct tgccatcctg gccgccttag 60  
cggtagtaac tttgtgttat gaatcacatg aaagcatgga atcttatgaa cttaatccct 120  
tcattaacag gagaaatgca aataccttca tatcccttca gcagagatgg agagctaaag 180  
tccaagagag gatccgagaa cgctctaagc ctgtccacga gctcaatagg gaagcctgtg 240  
atgactacag actttgcgaa cgctacgcca tggtttatgg atacaatgct gcctataatc 300  
gctacttcag gaagcgccga gggaccaaat gagactgagg gaagaaaaa a 351

<210> 321  
<211> 421



```

aacccaagcc tcagccccag cagctccacc cgtatccgca tccacatcca catccacact 300
ctcctectca ctgcgaccca caccctcacc cgcacccgca tccgcaccaa ataccgcacc 360
cacacccaca gccgcactcg cagccgcacg ggcaccggct tctccgcagc acctccaact 420
ctgcctgaaa ggggcagctc ccgggcaaga caaggttttg aggacttgag gaagtgggac 480
gagcacatth ctattgtctt cacttgatc aaaagcaaaa c 521

```

<210> 325

<211> 451

<212> DNA

<213> Homo sapiens

<400> 325

```

atthttcatth ccattaacct ggaagcttht atgaatattc tcttctthta aaacatthta 60
acattatthta aacagaaaaa gatgggtctt ttctgggttag ttgttacatg atagcagaga 120
tattthttact tagattactt tgggaatgag agattgttgt cttgaactct ggactgtac 180
agtgaatgtg tctgtagtgt tgtagtttg cattaagcat gtataacatt caagtatgtc 240
atccaaataa gaggcataata cattgaattg ththtaatcc tctgacaagt tgactcttcg 300
acccccaccc ccaccaaga cattthtaata gtaaatagag agagagagaa gagttaatga 360
acatgaggta gtgttccact ggcaggatga cththtaata gctcaaata atttcagtgc 420
ctthtatcact tgaattatta acttaatttg a 451

```

<210> 326

<211> 421

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> 296

<223> n = A,T,C or G

<400> 326

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cgcggtcgta agggctgagg atthtttggt cgcacgctcc tgctcctgac tcaccgctgt 60
tcgctctcgc cgaggaacaa gtcggtcagg aagcccgcgc gcaacagcca tggctthta 120
ggataccgga aaaacacccg tggagccgga ggtggcaatt caccgaattc gaatcacct 180
aacaagccgc aacgtaaaa ccttggaata ggtgtgtgct gacttgataa gaggcgcaa 240
agaaaagaat ctcaaagtga aaggaccagt tcgaatgcct accaagactt tgagantcac 300
tacaagaaaa actccttgtg gtgaagggtc taagacgtgg gatcgthtcc agatgagaat 360
tcacaagcga ctcatgtact tgcacagtc tcttgagatt gttaagcaga ttacttccat 420
c 421

```

<210> 327

<211> 456

<212> DNA

<213> Homo sapiens

<400> 327

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atcttgacga ggctgcggtg tctgctgcta ttctccgagc ttcgcaatgc cgcctaagga 60
cgacaagaag aagaaggacg ctggaaagtg ggccaagaaa gacaaagacc cagtgaacaa 120
atccgggggc aaggccaaaa agaagaagtg gtccaaaggc aaagttcggg acaagctcaa 180
taacttagtc ttgtttgaca aagctaccta tgataaactc tgtaagggaag thcccaacta 240
taactttata accccagctg tggctctctga gagactgaag attcgaggct ccctggccag 300
ggcagccctt caggagctcc ttagtaaaag acttatcaaa ctggthtcaa agcacagagc 360
tcaagtaatt tacaccagaa ataccaaggg tggagatgct ccagctgctg gtgaagatgc 420

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456

<211> 471

<213> Homo sapiens

gtggaagtga	catcgtcttt	aaacctg	tgccaatccc	tgacgcaccg	ccgtgatgcc	60
cagggaagac	agggcgacct	ggaagtccaa	ctacttcctt	aagatcatcc	aactattgga	120
tgattatccg	aaatgtttca	ttgtgggagc	agacaatgtg	ggctccaagc	agatgcagca	180
gatccgcatg	tcccttcg	ggaaggetgt	ggtgctgatg	ggcaagaaca	ccatgatgcg	240
caaggccatc	cgagggcacc	tggaaaacaa	cccagctctg	gagaaactgc	tgccctcatat	300
ccgggggaat	ctgggctttg	tggtcaccaa	ggaggacctc	actgagatca	gggacatgtt	360
ctgggccaat	aaggtgccag	ctgtgcgccg	tgctggtgcc	attgccccat	gtgaagtcac	420
tgtgccagcc	cagaacactg	gtctcgggcc	cgagaagacc	tcctttttcc	a	471

<211> 278

<213> Homo sapiens

```
<221> misc_feature
```

$\langle 223 \rangle$  n = A, T, C or G

gttttaaactt	aagcttggta	ccgagctcgg	atccactagt	ccagtgtggt	ggaattctag	60
aaattgagat	gcccccccag	gccagcaaat	gttccttttt	gttcaaagtc	tattttttatt	120
ccttgatat	ttctcttttt	tttttttttt	ttgnggatgg	ggacttgtga	atttttctaa	180
agggtgctatt	ttaacatggga	gganagcgtg	tgcggctcca	gccagcccg	ctgctcactt	240
tccaccctct	ctccacctgc	ctctggcttc	tcaggcct			278

<211> 338

<213> Homo sapiens

ctcaggcttc	aacatcgaat	acgcgcgagg	cccttcgcgc	ctattcttca	tagccgaata	60
cacaaacatt	attataataa	acaccctcac	cactacaatc	ttcctaggaa	caacatatga	120
cgcactctcc	cctgaactct	acacaacata	ttttgtcacc	aagaccctac	ttctaacctc	180
cctgttctta	tgaattcgaa	cagcataccc	ccgattccgc	tacgaccaac	tcatacacct	240
cctatgaaaa	aacttctcac	cactcacctc	agpattactt	atatgatatg	tctccatacc	300
cattacaatc	tccaqcattc	cccctcaaac	ctaaaaaa			338

<211> 2820

<213> Homo sapiens

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cacagaccac gcgcagaaca gcgtcacggc gccctcgccc tacgcacagc ccagccccac 240  
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cagttccgac gtgtccttcc agcagtcgag caccgccaag tcggccacct ggacgtattc 360  
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gatgacccca cctcctcagg gagctgttat ccgcgcctat cctgtctaca aaaaagctga 480  
gcacgtcacg gaggtgggtga agcggtgccc caaccatgag ctgagccgtg agttcaacga 540  
gggacagatt gccctccta gtcatttgat tcgagtagag gggaacagcc atgccagta 600  
tgtagaagat cccatcacag gaagacagag tgtgctggta ccttatgagc caccacaggt 660  
tggcactgaa ttcacgacag tcttgtaaaa tttcatgtgt aacagcagtt gtgttgagg 720  
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gggccgacgc tgctttgagg cccggatctg tgcttgccca ggaagagaca ggaaggcgga 840  
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<210> 332

<211> 2270

<212> DNA

<213> Homo sapiens

<400> 332



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<210> 333

<211> 2816

<212> DNA

<213> Homo sapiens

<400> 333

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aaagaaagtt attaccgata caccatgtcc cagagcacac agacaaatga attcctcagt 180
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&lt;213&gt; Homo sapiens

&lt;400&gt; 334

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<212> DNA

<213> Homo sapiens

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<211> 1386

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<210> 338

<211> 586

<212> PRT

<213> Homo sapiens

<400> 338

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85     90     95
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545                550                555                560
Arg Asp Glu Trp Asn Asp Phe Asn Phe Asp Met Asp Ala Arg Arg Asn
                565                570                575
Lys Gln Gln Arg Ile Lys Glu Glu Gly Glu
                580                585

```

```

<210> 339
<211> 641
<212> PRT
<213> Homo sapiens

```

```

<400> 339
Met Ser Gln Ser Thr Gln Thr Asn Glu Phe Leu Ser Pro Glu Val Phe
1                5                10                15
Gln His Ile Trp Asp Phe Leu Glu Gln Pro Ile Cys Ser Val Gln Pro

```

20 25 30  
 Ile Asp Leu Asn Phe Val Asp Glu Pro Ser Glu Asp Gly Ala Thr Asn  
 35 40 45  
 Lys Ile Glu Ile Ser Met Asp Cys Ile Arg Met Gln Asp Ser Asp Leu  
 50 55 60  
 Ser Asp Pro Met Trp Pro Gln Tyr Thr Asn Leu Gly Leu Leu Asn Ser  
 65 70 75 80  
 Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn  
 85 90 95  
 Thr Asp His Ala Gln Asn Ser Val Thr Ala Pro Ser Pro Tyr Ala Gln  
 100 105 110  
 Pro Ser Ser Thr Phe Asp Ala Leu Ser Pro Ser Pro Ala Ile Pro Ser  
 115 120 125  
 Asn Thr Asp Tyr Pro Gly Pro His Ser Phe Asp Val Ser Phe Gln Gln  
 130 135 140  
 Ser Ser Thr Ala Lys Ser Ala Thr Trp Thr Tyr Ser Thr Glu Leu Lys  
 145 150 155 160  
 Lys Leu Tyr Cys Gln Ile Ala Lys Thr Cys Pro Ile Gln Ile Lys Val  
 165 170 175  
 Met Thr Pro Pro Pro Gln Gly Ala Val Ile Arg Ala Met Pro Val Tyr  
 180 185 190  
 Lys Lys Ala Glu His Val Thr Glu Val Val Lys Arg Cys Pro Asn His  
 195 200 205  
 Glu Leu Ser Arg Glu Phe Asn Glu Gly Gln Ile Ala Pro Pro Ser His  
 210 215 220  
 Leu Ile Arg Val Glu Gly Asn Ser His Ala Gln Tyr Val Glu Asp Pro  
 225 230 235 240  
 Ile Thr Gly Arg Gln Ser Val Leu Val Pro Tyr Glu Pro Pro Gln Val  
 245 250 255  
 Gly Thr Glu Phe Thr Thr Val Leu Tyr Asn Phe Met Cys Asn Ser Ser  
 260 265 270  
 Cys Val Gly Gly Met Asn Arg Arg Pro Ile Leu Ile Ile Val Thr Leu  
 275 280 285  
 Glu Thr Arg Asp Gly Gln Val Leu Gly Arg Arg Cys Phe Glu Ala Arg  
 290 295 300  
 Ile Cys Ala Cys Pro Gly Arg Asp Arg Lys Ala Asp Glu Asp Ser Ile  
 305 310 315 320  
 Arg Lys Gln Gln Val Ser Asp Ser Thr Lys Asn Gly Asp Gly Thr Lys  
 325 330 335  
 Arg Pro Phe Arg Gln Asn Thr His Gly Ile Gln Met Thr Ser Ile Lys  
 340 345 350  
 Lys Arg Arg Ser Pro Asp Asp Glu Leu Leu Tyr Leu Pro Val Arg Gly  
 355 360 365  
 Arg Glu Thr Tyr Glu Met Leu Leu Lys Ile Lys Glu Ser Leu Glu Leu  
 370 375 380  
 Met Gln Tyr Leu Pro Gln His Thr Ile Glu Thr Tyr Arg Gln Gln Gln  
 385 390 395 400  
 Gln Gln Gln His Gln His Leu Leu Gln Lys Gln Thr Ser Ile Gln Ser  
 405 410 415  
 Pro Ser Ser Tyr Gly Asn Ser Ser Pro Pro Leu Asn Lys Met Asn Ser  
 420 425 430  
 Met Asn Lys Leu Pro Ser Val Ser Gln Leu Ile Asn Pro Gln Gln Arg  
 435 440 445  
 Asn Ala Leu Thr Pro Thr Thr Ile Pro Asp Gly Met Gly Ala Asn Ile



```

      450              455              460
Pro Met Met Gly Thr His Met Pro Met Ala Gly Asp Met Asn Gly Leu
465              470              475              480
Ser Pro Thr Gln Ala Leu Pro Pro Pro Leu Ser Met Pro Ser Thr Ser
              485              490              495
His Cys Thr Pro Pro Pro Pro Tyr Pro Thr Asp Cys Ser Ile Val Gly
              500              505              510
Phe Leu Ala Arg Leu Gly Cys Ser Ser Cys Leu Asp Tyr Phe Thr Thr
              515              520              525
Gln Gly Leu Thr Thr Ile Tyr Gln Ile Glu His Tyr Ser Met Asp Asp
              530              535              540
Leu Ala Ser Leu Lys Ile Pro Glu Gln Phe Arg His Ala Ile Trp Lys
545              550              555              560
Gly Ile Leu Asp His Arg Gln Leu His Glu Phe Ser Ser Pro Ser His
              565              570              575
Leu Leu Arg Thr Pro Ser Ser Ala Ser Thr Val Ser Val Gly Ser Ser
              580              585              590
Glu Thr Arg Gly Glu Arg Val Ile Asp Ala Val Arg Phe Thr Leu Arg
              595              600              605
Gln Thr Ile Ser Phe Pro Pro Arg Asp Glu Trp Asn Asp Phe Asn Phe
              610              615              620
Asp Met Asp Ala Arg Arg Asn Lys Gln Gln Arg Ile Lys Glu Glu Gly
625              630              635              640
Glu

```

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<210> 340
<211> 448
<212> PRT
<213> Homo sapiens

```

```

<400> 340
Met Ser Gln Ser Thr Gln Thr Asn Glu Phe Leu Ser Pro Glu Val Phe
 1              5              10              15
Gln His Ile Trp Asp Phe Leu Glu Gln Pro Ile Cys Ser Val Gln Pro
              20              25              30
Ile Asp Leu Asn Phe Val Asp Glu Pro Ser Glu Asp Gly Ala Thr Asn
              35              40              45
Lys Ile Glu Ile Ser Met Asp Cys Ile Arg Met Gln Asp Ser Asp Leu
              50              55              60
Ser Asp Pro Met Trp Pro Gln Tyr Thr Asn Leu Gly Leu Leu Asn Ser
65              70              75              80
Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn
              85              90              95
Thr Asp His Ala Gln Asn Ser Val Thr Ala Pro Ser Pro Tyr Ala Gln
              100              105              110
Pro Ser Ser Thr Phe Asp Ala Leu Ser Pro Ser Pro Ala Ile Pro Ser
              115              120              125
Asn Thr Asp Tyr Pro Gly Pro His Ser Phe Asp Val Ser Phe Gln Gln
              130              135              140
Ser Ser Thr Ala Lys Ser Ala Thr Trp Thr Tyr Ser Thr Glu Leu Lys
145              150              155              160
Lys Leu Tyr Cys Gln Ile Ala Lys Thr Cys Pro Ile Gln Ile Lys Val

```

```

          165          170          175
Met Thr Pro Pro Pro Gln Gly Ala Val Ile Arg Ala Met Pro Val Tyr
          180          185          190
Lys Lys Ala Glu His Val Thr Glu Val Val Lys Arg Cys Pro Asn His
          195          200          205
Glu Leu Ser Arg Glu Phe Asn Glu Gly Gln Ile Ala Pro Pro Ser His
          210          215          220
Leu Ile Arg Val Glu Gly Asn Ser His Ala Gln Tyr Val Glu Asp Pro
225          230          235          240
Ile Thr Gly Arg Gln Ser Val Leu Val Pro Tyr Glu Pro Pro Gln Val
          245          250          255
Gly Thr Glu Phe Thr Thr Val Leu Tyr Asn Phe Met Cys Asn Ser Ser
          260          265          270
Cys Val Gly Gly Met Asn Arg Arg Pro Ile Leu Ile Ile Val Thr Leu
          275          280          285
Glu Thr Arg Asp Gly Gln Val Leu Gly Arg Arg Cys Phe Glu Ala Arg
          290          295          300
Ile Cys Ala Cys Pro Gly Arg Asp Arg Lys Ala Asp Glu Asp Ser Ile
305          310          315          320
Arg Lys Gln Gln Val Ser Asp Ser Thr Lys Asn Gly Asp Gly Thr Lys
          325          330          335
Arg Pro Phe Arg Gln Asn Thr His Gly Ile Gln Met Thr Ser Ile Lys
          340          345          350
Lys Arg Arg Ser Pro Asp Asp Glu Leu Leu Tyr Leu Pro Val Arg Gly
          355          360          365
Arg Glu Thr Tyr Glu Met Leu Leu Lys Ile Lys Glu Ser Leu Glu Leu
          370          375          380
Met Gln Tyr Leu Pro Gln His Thr Ile Glu Thr Tyr Arg Gln Gln Gln
385          390          395          400
Gln Gln Gln His Gln His Leu Leu Gln Lys His Leu Leu Ser Ala Cys
          405          410          415
Phe Arg Asn Glu Leu Val Glu Pro Arg Arg Glu Thr Pro Lys Gln Ser
          420          425          430
Asp Val Phe Phe Arg His Ser Lys Pro Pro Asn Arg Ser Val Tyr Pro
          435          440          445

```

<210> 341

<211> 356

<212> PRT

<213> Homo sapiens

<400> 341

```

Met Leu Tyr Leu Glu Asn Asn Ala Gln Thr Gln Phe Ser Glu Pro Gln
1          5          10          15
Tyr Thr Asn Leu Gly Leu Leu Asn Ser Met Asp Gln Gln Ile Gln Asn
          20          25          30
Gly Ser Ser Ser Thr Ser Pro Tyr Asn Thr Asp His Ala Gln Asn Ser
          35          40          45
Val Thr Ala Pro Ser Pro Tyr Ala Gln Pro Ser Ser Thr Phe Asp Ala
          50          55          60
Leu Ser Pro Ser Pro Ala Ile Pro Ser Asn Thr Asp Tyr Pro Gly Pro
65          70          75          80
His Ser Phe Asp Val Ser Phe Gln Gln Ser Ser Thr Ala Lys Ser Ala

```

```

      85      90      95
Thr Trp Thr Tyr Ser Thr Glu Leu Lys Lys Leu Tyr Cys Gln Ile Ala
      100      105      110
Lys Thr Cys Pro Ile Gln Ile Lys Val Met Thr Pro Pro Pro Gln Gly
      115      120      125
Ala Val Ile Arg Ala Met Pro Val Tyr Lys Lys Ala Glu His Val Thr
      130      135      140
Glu Val Val Lys Arg Cys Pro Asn His Glu Leu Ser Arg Glu Phe Asn
145      150      155      160
Glu Gly Gln Ile Ala Pro Pro Ser His Leu Ile Arg Val Glu Gly Asn
      165      170      175
Ser His Ala Gln Tyr Val Glu Asp Pro Ile Thr Gly Arg Gln Ser Val
      180      185      190
Leu Val Pro Tyr Glu Pro Pro Gln Val Gly Thr Glu Phe Thr Thr Val
      195      200      205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
210      215      220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val
225      230      235      240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg
      245      250      255
Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp
      260      265      270
Ser Thr Lys Asn Gly Asp Gly Thr Lys Arg Pro Ser Arg Gln Asn Thr
      275      280      285
His Gly Ile Gln Met Thr Ser Ile Lys Lys Arg Arg Ser Pro Asp Asp
290      295      300
Glu Leu Leu Tyr Leu Pro Val Arg Gly Arg Glu Thr Tyr Glu Met Leu
305      310      315      320
Leu Lys Ile Lys Glu Ser Leu Glu Leu Met Gln Tyr Leu Pro Gln His
      325      330      335
Thr Ile Glu Thr Tyr Arg Gln Gln Gln Gln Gln His Gln His Leu
      340      345      350
Leu Gln Lys Gln
      355

```

&lt;210&gt; 342

&lt;211&gt; 680

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 342

```

Met Asn Phe Glu Thr Ser Arg Cys Ala Thr Leu Gln Tyr Cys Pro Asp
 1      5      10      15
Pro Tyr Ile Gln Arg Phe Val Glu Thr Pro Ala His Phe Ser Trp Lys
      20      25      30
Glu Ser Tyr Tyr Arg Ser Thr Met Ser Gln Ser Thr Gln Thr Asn Glu
      35      40      45
Phe Leu Ser Pro Glu Val Phe Gln His Ile Trp Asp Phe Leu Glu Gln
      50      55      60
Pro Ile Cys Ser Val Gln Pro Ile Asp Leu Asn Phe Val Asp Glu Pro
65      70      75      80
Ser Glu Asp Gly Ala Thr Asn Lys Ile Glu Ile Ser Met Asp Cys Ile

```

85													90				95		
Arg	Met	Gln	Asp	Ser	Asp	Leu	Ser	Asp	Pro	Met	Trp	Pro	Gln	Tyr	Thr				
100													105				110		
Asn	Leu	Gly	Leu	Leu	Asn	Ser	Met	Asp	Gln	Gln	Ile	Gln	Asn	Gly	Ser				
115													120				125		
Ser	Ser	Thr	Ser	Pro	Tyr	Asn	Thr	Asp	His	Ala	Gln	Asn	Ser	Val	Thr				
130													135				140		
Ala	Pro	Ser	Pro	Tyr	Ala	Gln	Pro	Ser	Ser	Thr	Phe	Asp	Ala	Leu	Ser				
145	150													155				160	
Pro	Ser	Pro	Ala	Ile	Pro	Ser	Asn	Thr	Asp	Tyr	Pro	Gly	Pro	His	Ser				
165													170				175		
Phe	Asp	Val	Ser	Phe	Gln	Gln	Ser	Ser	Thr	Ala	Lys	Ser	Ala	Thr	Trp				
180													185				190		
Thr	Tyr	Ser	Thr	Glu	Leu	Lys	Lys	Leu	Tyr	Cys	Gln	Ile	Ala	Lys	Thr				
195													200				205		
Cys	Pro	Ile	Gln	Ile	Lys	Val	Met	Thr	Pro	Pro	Pro	Gln	Gly	Ala	Val				
210	215													220				225	
Ile	Arg	Ala	Met	Pro	Val	Tyr	Lys	Lys	Ala	Glu	His	Val	Thr	Glu	Val				
225	230													235				240	
Val	Lys	Arg	Cys	Pro	Asn	His	Glu	Leu	Ser	Arg	Glu	Phe	Asn	Glu	Gly				
245													250				255		
Gln	Ile	Ala	Pro	Pro	Ser	His	Leu	Ile	Arg	Val	Glu	Gly	Asn	Ser	His				
260													265				270		
Ala	Gln	Tyr	Val	Glu	Asp	Pro	Ile	Thr	Gly	Arg	Gln	Ser	Val	Leu	Val				
275													280				285		
Pro	Tyr	Glu	Pro	Pro	Gln	Val	Gly	Thr	Glu	Phe	Thr	Thr	Val	Leu	Tyr				
290													295				300		
Asn	Phe	Met	Cys	Asn	Ser	Ser	Cys	Val	Gly	Gly	Met	Asn	Arg	Arg	Pro				
305	310													315				320	
Ile	Leu	Ile	Ile	Val	Thr	Leu	Glu	Thr	Arg	Asp	Gly	Gln	Val	Leu	Gly				
325													330				335		
Arg	Arg	Cys	Phe	Glu	Ala	Arg	Ile	Cys	Ala	Cys	Pro	Gly	Arg	Asp	Arg				
340													345				350		
Lys	Ala	Asp	Glu	Asp	Ser	Ile	Arg	Lys	Gln	Gln	Val	Ser	Asp	Ser	Thr				
355													360				365		
Lys	Asn	Gly	Asp	Gly	Thr	Lys	Arg	Pro	Phe	Arg	Gln	Asn	Thr	His	Gly				
370													375				380		
Ile	Gln	Met	Thr	Ser	Ile	Lys	Lys	Arg	Arg	Ser	Pro	Asp	Asp	Glu	Leu				
385	390													395				400	
Leu	Tyr	Leu	Pro	Val	Arg	Gly	Arg	Glu	Thr	Tyr	Glu	Met	Leu	Leu	Lys				
405													410				415		
Ile	Lys	Glu	Ser	Leu	Glu	Leu	Met	Gln	Tyr	Leu	Pro	Gln	His	Thr	Ile				
420													425				430		
Glu	Thr	Tyr	Arg	Gln	Gln	Gln	Gln	Gln	Gln	His	Gln	His	Leu	Leu	Gln				
435													440				445		
Lys	Gln	Thr	Ser	Ile	Gln	Ser	Pro	Ser	Ser	Tyr	Gly	Asn	Ser	Ser	Pro				
450													455				460		
Pro	Leu	Asn	Lys	Met	Asn	Ser	Met	Asn	Lys	Leu	Pro	Ser	Val	Ser	Gln				
465	470													475				480	
Leu	Ile	Asn	Pro	Gln	Gln	Arg	Asn	Ala	Leu	Thr	Pro	Thr	Thr	Ile	Pro				
485													490				495		
Asp	Gly	Met	Gly	Ala	Asn	Ile	Pro	Met	Met	Gly	Thr	His	Met	Pro	Met				
500													505				510		
Ala	Gly	Asp	Met	Asn	Gly	Leu	Ser	Pro	Thr	Gln	Ala	Leu	Pro	Pro	Pro				

```
<210> 343
<211> 461
<212> PRT
<213> Homo sapiens
```

<400> 343																
Met	Leu	Tyr	Leu	Glu	Asn	Asn	Ala	Gln	Thr	Gln	Phe	Ser	Glu	Pro	Gln	
1				5					10					15		
Tyr	Thr	Asn	Leu	Gly	Leu	Leu	Asn	Ser	Met	Asp	Gln	Gln	Ile	Gln	Asn	
			20					25					30			
Gly	Ser	Ser	Ser	Thr	Ser	Pro	Tyr	Asn	Thr	Asp	His	Ala	Gln	Asn	Ser	
			35					40				45				
Val	Thr	Ala	Pro	Ser	Pro	Tyr	Ala	Gln	Pro	Ser	Ser	Thr	Phe	Asp	Ala	
	50					55					60					
Leu	Ser	Pro	Ser	Pro	Ala	Ile	Pro	Ser	Asn	Thr	Asp	Tyr	Pro	Gly	Pro	
65					70					75				80		
His	Ser	Phe	Asp	Val	Ser	Phe	Gln	Gln	Ser	Ser	Thr	Ala	Lys	Ser	Ala	
				85					90					95		
Thr	Trp	Thr	Tyr	Ser	Thr	Glu	Leu	Lys	Lys	Leu	Tyr	Cys	Gln	Ile	Ala	
			100					105					110			
Lys	Thr	Cys	Pro	Ile	Gln	Ile	Lys	Val	Met	Thr	Pro	Pro	Pro	Gln	Gly	
		115					120					125				
Ala	Val	Ile	Arg	Ala	Met	Pro	Val	Tyr	Lys	Lys	Ala	Glu	His	Val	Thr	
			130			135					140					
Glu	Val	Val	Lys	Arg	Cys	Pro	Asn	His	Glu	Leu	Ser	Arg	Glu	Phe	Asn	
145					150					155				160		
Glu	Gly	Gln	Ile	Ala	Pro	Pro	Ser	His	Leu	Ile	Arg	Val	Glu	Gly	Asn	
				165					170					175		
Ser	His	Ala	Gln	Tyr	Val	Glu	Asp	Pro	Ile	Thr	Gly	Arg	Gln	Ser	Val	
			180					185					190			
Leu	Val	Pro	Tyr	Glu	Pro	Pro	Gln	Val	Gly	Thr	Glu	Phe	Thr	Thr	Val	

```

      195              200              205
Leu Tyr Asn Phe Met Cys Asn Ser Ser Cys Val Gly Gly Met Asn Arg
  210              215              220
Arg Pro Ile Leu Ile Ile Val Thr Leu Glu Thr Arg Asp Gly Gln Val
  225              230              235              240
Leu Gly Arg Arg Cys Phe Glu Ala Arg Ile Cys Ala Cys Pro Gly Arg
      245              250              255
Asp Arg Lys Ala Asp Glu Asp Ser Ile Arg Lys Gln Gln Val Ser Asp
      260              265              270
Ser Thr Lys Asn Gly Asp Gly Thr Lys Arg Pro Phe Arg Gln Asn Thr
      275              280              285
His Gly Ile Gln Met Thr Ser Ile Lys Lys Arg Arg Ser Pro Asp Asp
      290              295              300
Glu Leu Leu Tyr Leu Pro Val Arg Gly Arg Glu Thr Tyr Glu Met Leu
  305              310              315              320
Leu Lys Ile Lys Glu Ser Leu Glu Leu Met Gln Tyr Leu Pro Gln His
      325              330              335
Thr Ile Glu Thr Tyr Arg Gln Gln Gln Gln Gln His Gln His Leu
      340              345              350
Leu Gln Lys Gln Thr Ser Ile Gln Ser Pro Ser Ser Tyr Gly Asn Ser
      355              360              365
Ser Pro Pro Leu Asn Lys Met Asn Ser Met Asn Lys Leu Pro Ser Val
  370              375              380
Ser Gln Leu Ile Asn Pro Gln Gln Arg Asn Ala Leu Thr Pro Thr Thr
  385              390              395              400
Ile Pro Asp Gly Met Gly Ala Asn Ile Pro Met Met Gly Thr His Met
      405              410              415
Pro Met Ala Gly Asp Met Asn Gly Leu Ser Pro Thr Gln Ala Leu Pro
      420              425              430
Pro Pro Leu Ser Met Pro Ser Thr Ser His Cys Thr Pro Pro Pro Pro
      435              440              445
Tyr Pro Thr Asp Cys Ser Ile Val Arg Ile Trp Gln Val
  450              455              460

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&lt;210&gt; 344

&lt;211&gt; 516

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 344

```

Met Ser Gln Ser Thr Gln Thr Asn Glu Phe Leu Ser Pro Glu Val Phe
  1              5              10              15
Gln His Ile Trp Asp Phe Leu Glu Gln Pro Ile Cys Ser Val Gln Pro
      20              25              30
Ile Asp Leu Asn Phe Val Asp Glu Pro Ser Glu Asp Gly Ala Thr Asn
      35              40              45
Lys Ile Glu Ile Ser Met Asp Cys Ile Arg Met Gln Asp Ser Asp Leu
      50              55              60
Ser Asp Pro Met Trp Pro Gln Tyr Thr Asn Leu Gly Leu Leu Asn Ser
      65              70              75              80
Met Asp Gln Gln Ile Gln Asn Gly Ser Ser Ser Thr Ser Pro Tyr Asn
      85              90              95
Thr Asp His Ala Gln Asn Ser Val Thr Ala Pro Ser Pro Tyr Ala Gln

```

```

      100      105      110
Pro Ser Ser Thr Phe Asp Ala Leu Ser Pro Ser Pro Ala Ile Pro Ser
      115      120      125
Asn Thr Asp Tyr Pro Gly Pro His Ser Phe Asp Val Ser Phe Gln Gln
      130      135      140
Ser Ser Thr Ala Lys Ser Ala Thr Trp Thr Tyr Ser Thr Glu Leu Lys
145      150      155      160
Lys Leu Tyr Cys Gln Ile Ala Lys Thr Cys Pro Ile Gln Ile Lys Val
      165      170      175
Met Thr Pro Pro Pro Gln Gly Ala Val Ile Arg Ala Met Pro Val Tyr
      180      185      190
Lys Lys Ala Glu His Val Thr Glu Val Val Lys Arg Cys Pro Asn His
      195      200      205
Glu Leu Ser Arg Glu Phe Asn Glu Gly Gln Ile Ala Pro Pro Ser His
      210      215      220
Leu Ile Arg Val Glu Gly Asn Ser His Ala Gln Tyr Val Glu Asp Pro
225      230      235      240
Ile Thr Gly Arg Gln Ser Val Leu Val Pro Tyr Glu Pro Pro Gln Val
      245      250      255
Gly Thr Glu Phe Thr Thr Val Leu Tyr Asn Phe Met Cys Asn Ser Ser
      260      265      270
Cys Val Gly Gly Met Asn Arg Arg Pro Ile Leu Ile Ile Val Thr Leu
      275      280      285
Glu Thr Arg Asp Gly Gln Val Leu Gly Arg Arg Cys Phe Glu Ala Arg
290      295      300
Ile Cys Ala Cys Pro Gly Arg Asp Arg Lys Ala Asp Glu Asp Ser Ile
305      310      315      320
Arg Lys Gln Gln Val Ser Asp Ser Thr Lys Asn Gly Asp Gly Thr Lys
      325      330      335
Arg Pro Phe Arg Gln Asn Thr His Gly Ile Gln Met Thr Ser Ile Lys
      340      345      350
Lys Arg Arg Ser Pro Asp Asp Glu Leu Leu Tyr Leu Pro Val Arg Gly
      355      360      365
Arg Glu Thr Tyr Glu Met Leu Leu Lys Ile Lys Glu Ser Leu Glu Leu
370      375      380
Met Gln Tyr Leu Pro Gln His Thr Ile Glu Thr Tyr Arg Gln Gln Gln
385      390      395      400
Gln Gln Gln His Gln His Leu Leu Gln Lys Gln Thr Ser Ile Gln Ser
      405      410      415
Pro Ser Ser Tyr Gly Asn Ser Ser Pro Pro Leu Asn Lys Met Asn Ser
      420      425      430
Met Asn Lys Leu Pro Ser Val Ser Gln Leu Ile Asn Pro Gln Gln Arg
      435      440      445
Asn Ala Leu Thr Pro Thr Thr Ile Pro Asp Gly Met Gly Ala Asn Ile
      450      455      460
Pro Met Met Gly Thr His Met Pro Met Ala Gly Asp Met Asn Gly Leu
465      470      475      480
Ser Pro Thr Gln Ala Leu Pro Pro Pro Leu Ser Met Pro Ser Thr Ser
      485      490      495
His Cys Thr Pro Pro Pro Tyr Pro Thr Asp Cys Ser Ile Val Arg
      500      505      510
Ile Trp Gln Val
      515

```

1000700-13001

<210> 345  
 <211> 1800  
 <212> DNA  
 <213> Homo sapiens

<400> 345  
 gcgcctcatt gccactgcag tgactaaagc tgggaagacg ctggtcagtt cacctgcccc 60  
 actgggttgtt ttttaaacia attctgatac aggcgacatc ctactgacc gagcaaagat 120  
 tgacattcgt atcatcactg tgcaccattg gcttctaggc actccagtgg ggtaggagaa 180  
 ggaggtctga aacctctgca gagggatctt gccctcattc tttgggtctg aaactctggc 240  
 agtcgttgga aacaggactc agggataaac cagcgcaatg gattggggga cgctgcacac 300  
 tttcatcggg ggtgtcaaca aacactccac cagcatcggg aagggtgtgga tcacagtcac 360  
 ctttattttc cgagtcatac tcctagtggg ggctgcccag gaagtgtggg gtgacgagca 420  
 agaggacttc gtcgtcaaca cactgcaacc gggatgcaaa aatgtgtgct atgaccactt 480  
 tttcccggtg tccacatccc ggctgtgggc cctccagctg atcttcgtct ccacccagc 540  
 gctgctggtg gccatgcacg tggcctacta caggcacgaa accactcgca agttcaggcg 600  
 aggagagaag aggaatgatt tcaaagacat agaggacatt aaaaagcaca aggttcggat 660  
 agaggggtcg ctgtgttgga cgtacaccag cagcatcttt ttccgaatca tctttgaagc 720  
 agcctttatg tatgtgtttt acttccttta caatgggtac cacctgccct ggggtgtgaa 780  
 atgtgggatt gaccctgcc ccaacctgtg tgactgcttt atttctaggc caacagagaa 840  
 gaccgtgttt accattttta tgatttctgc gtctgtgatt tgcattgctgc ttaacgtggc 900  
 agagttgtgc tacctgctgc tgaaagtgtg ttttaggaga tcaaagagag cacagacgca 960  
 aaaaaatcac cccaatcatg ccctaaagga gagtaagcag aatgaaatga atgagctgat 1020  
 ttcagatagt ggtcaaaatg caatcacagg tttcccaagc taaacatttc aaggtaaaat 1080  
 gtagctgcgt cataaggaga cttctgtctt ctccagaagg caataccaac ctgaaagtgc 1140  
 cttctgtagc ctgaagagtt tgtaaatgac tttcataata aatagacact tgagttaact 1200  
 ttttgtagga tacttgctcc attcatacac aacgtaatca aatatgtggg ccatctctga 1260  
 aaacaagaga ctgcttgaca aaggagcatt gcagtcactt tgacagggtc cttttaagtg 1320  
 gactctctga caaagtgggt actttctgaa aatttatata actgttggtg ataaggaaca 1380  
 tttatccagg aattgatacg tttattagga aaagatattt ttataggcct ggatgttttt 1440  
 agttccgact ttgaatttat ataaagtatt tttataatga ctggtcttcc ttacctggaa 1500  
 aaacatgcga tgtagtttt agaattacac cacaagtatc taaatttcca acttaciaag 1560  
 ggctctatct tgtaaatatt gttttgcatt gtctgttggc aaatttgtga actgtcatga 1620  
 tacgtttaag gtgggaaagt gttcattgca caatatattt ttactgcttt ctgaatgtag 1680  
 acggaacagt gtggaagcag aaggcttttt taactcatcc gtttggccga tcgttgacga 1740  
 ccaactggag atgtggatgt ggttgccctc ttttgctcgt ccccggtggc taacccttct 1800

<210> 346  
 <211> 261  
 <212> PRT  
 <213> Homo sapiens

<400> 346  
 Met Asp Trp Gly Thr Leu His Thr Phe Ile Gly Gly Val Asn Lys His  
 1 5 10 15  
 Ser Thr Ser Ile Gly Lys Val Trp Ile Thr Val Ile Phe Ile Phe Arg  
 20 25 30  
 Val Met Ile Leu Val Val Ala Ala Gln Glu Val Trp Gly Asp Glu Gln  
 35 40 45  
 Glu Asp Phe Val Cys Asn Thr Leu Gln Pro Gly Cys Lys Asn Val Cys  
 50 55 60  
 Tyr Asp His Phe Phe Pro Val Ser His Ile Arg Leu Trp Ala Leu Gln



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<210> 347
<211> 1740
<212> DNA
<213> Homo sapiens
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<400> 347						
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ttcgtggact	gcccggacga	gagctgggcc	ctcaaggcca	tcgaggcgct	ttcaggtaaa	180
atagaactgc	acgggaaacc	catagaagtt	gagcactcgg	tcccaaaaaa	gcaaaggatt	240
cggaaacttc	agatacga	tatcccgctt	catttacagt	gggagggtgct	ggatagttta	300
ctagtccagt	atggatgtgt	ggagagctgt	cgacaagtga	acactgactc	ggaaactgca	360
gttgtaaattg	taacctattc	cagtaaggac	caagctagac	aagcactaga	caaactgaat	420
ggatttcagt	tagagaattt	caccttgaaa	gtagcctata	tccttgatga	aacggccgcc	480
cagcaaaacc	ccttgcagca	gccccgaggt	cgccgggggc	ttgggcagag	gggtcctca	540
aggcaggggt	ctccaggatc	cgtatccaag	cagaaaccat	gtgatttgcc	tctgcgcctg	600
ctgggtccca	cccaatttgt	tggagccatc	ataggaaaaa	aagggtgccac	cattcggaac	660
atcaccaaac	agaccacgtc	taaaaatcgt	gtccaccgta	aagaaaaatgc	gggggtcgtc	720
cagaagtcca	tctactcctt	ctctactcct	gaaggcacct	ctcgcgcttg	taagtctatt	780
gtggagatta	tgcataagga	agctcaagat	ataaaattca	cagaagagat	ccccttgaag	840
atttttagctc	ataataactt	tgttggacgt	cttatttggt	aagaaggaag	aaatcttaaa	900
aaaattgagc	aagacacaga	cactaaaatc	acgatatctc	cattgcagga	attgacgctg	960
tataatccag	aacgcactat	tacagttaaa	ggcaatgttg	agacatgtgc	caaagctgag	1020
gaggagatca	tgaagaaaat	cagggagctt	tatgaaaatg	atattgtctc	tatgaatctt	1080
caagcacatt	taattcctgc	attaaatctg	aacgcctttg	gtctgttccc	accacttta	1140
ggagtgccac	ctcccacctc	agggccccct	tacgccatga	ctctcccta	cccgcatgtt	1200
ggcaatcaq	aaacggaqac	tgttcattctg	tttatcccg	ctctatcagt	cggtgccatc	1260

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atcggcaagc agggccagca catcaagcag ctttctcgct ttgctggagc ttcaattaag 1320
attgctccag cggaagcacc agatgctaaa gtgaggatgg tgattatcac tggaccacca 1380
gaggctcagt tcaaggctca gggaagaatt tatggaaaaa ttaaagaaga aaactttggt 1440
agtcctaaag aagaggtgaa acttgaagct catatcagag tgccatcctt tgctgctggc 1500
agagttattg gaaaaggagg caaaacgggtg aatgaacttc agaatttgtc aagtgcagaa 1560
gttggtgtcc ctcgtgacca gacacctgat gagaatgacc aagtggttgt caaaataact 1620
ggtcacttct atgcttgcca ggttgcccag agaaaaattc aggaaattct gactcaggta 1680
aagcagcacc aacaacagaa ggctctgcaa agtgaggacc ctcagtcaag acggaagtaa 1740

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<210> 348

<211> 579

<212> PRT

<213> Homo sapiens

<400> 348

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Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser
  1           5           10           15
Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
      20           25           30
Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser
      35           40           45
Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
      50           55           60
Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
      65           70           75           80
Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
      85           90           95
Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
      100          105          110
Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
      115          120          125
Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
      130          135          140
Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala
      145          150          155          160
Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
      165          170          175
Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
      180          185          190
Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly
      195          200          205
Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln
      210          215          220
Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala
      225          230          235          240
Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala
      245          250          255
Cys Lys Ser Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys
      260          265          270
Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Asn Phe Val
      275          280          285
Gly Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln
      290          295          300

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100070073007

Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu  
 305 310 315 320  
 Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr Cys  
 325 330 335  
 Ala Lys Ala Glu Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu  
 340 345 350  
 Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile Pro Gly Leu  
 355 360 365  
 Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro  
 370 375 380  
 Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe  
 385 390 395 400  
 Glu Gln Ser Glu Thr Glu Thr Val His Leu Phe Ile Pro Ala Leu Ser  
 405 410 415  
 Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser  
 420 425 430  
 Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp  
 435 440 445  
 Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe  
 450 455 460  
 Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val  
 465 470 475 480  
 Ser Pro Lys Glu Glu Val Lys Leu Glu Ala His Ile Arg Val Pro Ser  
 485 490 495  
 Phe Ala Ala Gly Arg Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu  
 500 505 510  
 Leu Gln Asn Leu Ser Ser Ala Glu Val Val Val Pro Arg Asp Gln Thr  
 515 520 525  
 Pro Asp Glu Asn Asp Gln Val Val Val Lys Ile Thr Gly His Phe Tyr  
 530 535 540  
 Ala Cys Gln Val Ala Gln Arg Lys Ile Gln Glu Ile Leu Thr Gln Val  
 545 550 555 560  
 Lys Gln His Gln Gln Lys Ala Leu Gln Ser Gly Pro Pro Gln Ser  
 565 570 575  
 Arg Arg Lys

<210> 349  
 <211> 207  
 <212> DNA  
 <213> Homo sapiens

<400> 349  
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 gctgcagcag cctccaccca gcctgaggat gacatcaata cacagaggaa gaagagtcag 120  
 gaaaagatga gagaagttac agactctcct gggcgacccc gagagcttac cattcctcag 180  
 acttcttcac atggtgctaa cagatatt 207

<210> 350  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 350

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Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly
 1          5          10          15
Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp Ile
          20          25          30
Asn Thr Gln Arg Lys Lys Ser Gln Glu Lys Met Arg Glu Val Thr Asp
          35          40          45
Ser Pro Gly Arg Pro Arg Glu Leu Thr Ile Pro Gln Thr Ser Ser His
          50          55          60
Gly Ala Asn Arg Phe
65

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&lt;210&gt; 351

&lt;211&gt; 1012

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 351

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ccctctagaa ataattttgt ttaactttaa gaaggagata tacatatgca tcaccatcac 60
catcacacgg ccgctccga taacttccag ctgtcccagg gtgggcaggg attcgccatt 120
ccgatcgggc aggcgatggc gatcgcgggc cagatcaagc tcccaccgt tcatatcggg 180
cctaccgcct tcctcggctt ggggtgtgtc gacaacaacg gcaacggcgc acgagtccaa 240
cgcggtggtc ggagcgtcc ggcggaagt ctcgcatct ccaccggcga cgtgatcacc 300
gcggtcgacg gcgtccgat caactcggcc accgcgatgg cggacgcgct taacgggcat 360
catcccggtg acgtcatctc ggtgacctgg caaaccaagt cgggcggcac gcgtacaggg 420
aacgtgacat tggccgaggg accccggcc gaattcatgg attgggggac gctgcacact 480
ttcatcgggg gtgtcaacaa aactccacc agcatcggga aggtgtggat cacagtcatc 540
tttattttcc gagtcatgat cctcgtggtg gctgccagg aagtgtggg tgacgagcaa 600
gaggacttcg tctgcaacac actgcaaccg ggatgcaaaa atgtgtgcta tgaccacttt 660
ttcccggtgt cccacatccg gctgtgggcc ctccagctga tcttcgtctc cccccagcg 720
ctgctggtgg ccatgcatgt ggcctactac aggcacgaaa ccactcgcaa gttcaggcga 780
ggagagaaga ggaatgatt caaagacata gaggacatta aaaagcagaa ggttcggata 840
gaggggtgac tcgagcacca ccaccaccac cactgagatc cggctgctaa caaagcccga 900
aaggaagctg agttggctgc tgccaccgct gagcaataac tagcataacc ccttggggcc 960
tctaaacggg tcttgagggg ttttttgctg aaaggaggaa ctatatccgg at 1012

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&lt;210&gt; 352

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 352

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Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu
 1          5          10          15
Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala
          20          25          30
Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala
          35          40          45
Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val
          50          55          60
Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr
          65          70          75          80
Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr

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<210> 353
<211> 900
<212> DNA
<213> Homo sapiens
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<210> 354
<211> 299
<212> PRT
<213> Homo sapiens
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<400> 354

Met His His His His His His Thr Ala Ala Ser Asp Asn Phe Gln Leu  
 1 5 10 15  
 Ser Gln Gly Gly Gln Gly Phe Ala Ile Pro Ile Gly Gln Ala Met Ala  
 20 25 30  
 Ile Ala Gly Gln Ile Lys Leu Pro Thr Val His Ile Gly Pro Thr Ala  
 35 40 45  
 Phe Leu Gly Leu Gly Val Val Asp Asn Asn Gly Asn Gly Ala Arg Val  
 50 55 60  
 Gln Arg Val Val Gly Ser Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr  
 65 70 75 80  
 Gly Asp Val Ile Thr Ala Val Asp Gly Ala Pro Ile Asn Ser Ala Thr  
 85 90 95  
 Ala Met Ala Asp Ala Leu Asn Gly His His Pro Gly Asp Val Ile Ser  
 100 105 110  
 Val Thr Trp Gln Thr Lys Ser Gly Gly Thr Arg Thr Gly Asn Val Thr  
 115 120 125  
 Leu Ala Glu Gly Pro Pro Ala Glu Phe His Glu Thr Thr Arg Lys Phe  
 130 135 140  
 Arg Arg Gly Glu Lys Arg Asn Asp Phe Lys Asp Ile Glu Asp Ile Lys  
 145 150 155 160  
 Lys Gln Lys Val Arg Ile Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser  
 165 170 175  
 Ser Ile Phe Phe Arg Ile Ile Phe Glu Ala Ala Phe Met Tyr Val Phe  
 180 185 190  
 Tyr Phe Leu Tyr Asn Gly Tyr His Leu Pro Trp Val Leu Lys Cys Gly  
 195 200 205  
 Ile Asp Pro Cys Pro Asn Leu Val Asp Cys Phe Ile Ser Arg Pro Thr  
 210 215 220  
 Glu Lys Thr Val Phe Thr Ile Phe Met Ile Ser Ala Ser Val Ile Cys  
 225 230 235 240  
 Met Leu Leu Asn Val Ala Glu Leu Cys Tyr Leu Leu Leu Lys Val Cys  
 245 250 255  
 Phe Arg Arg Ser Lys Arg Ala Gln Thr Gln Lys Asn His Pro Asn His  
 260 265 270  
 Ala Leu Lys Glu Ser Lys Gln Asn Glu Met Asn Glu Leu Ile Ser Asp  
 275 280 285  
 Ser Gly Gln Asn Ala Ile Thr Gly Phe Pro Ser  
 290 295

<210> 355

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 355

ggagtacagc ttcaagacaa tggg

24

<210> 356

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 356

ccatgggaat tcattataat aattttgttc c

31

<210> 357

<211> 920

<212> PRT

<213> Homo sapiens

<400> 357

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Met Gln His His His His His His Gly Val Gln Leu Gln Asp Asn Gly
 1          5          10          15
Tyr Asn Gly Leu Ile Ala Ile Asn Pro Gln Val Pro Glu Asn Gln
      20          25          30
Asn Leu Ile Ser Asn Ile Lys Glu Met Ile Thr Glu Ala Ser Phe Tyr
      35          40          45
Leu Phe Asn Ala Thr Lys Arg Arg Val Phe Phe Arg Asn Ile Lys Ile
      50          55          60
Leu Ile Pro Ala Thr Trp Lys Ala Asn Asn Asn Ser Lys Ile Lys Gln
      65          70          75          80
Glu Ser Tyr Glu Lys Ala Asn Val Ile Val Thr Asp Trp Tyr Gly Ala
      85          90          95
His Gly Asp Asp Pro Tyr Thr Leu Gln Tyr Arg Gly Cys Gly Lys Glu
      100          105          110
Gly Lys Tyr Ile His Phe Thr Pro Asn Phe Leu Leu Asn Asp Asn Leu
      115          120          125
Thr Ala Gly Tyr Gly Ser Arg Gly Arg Val Phe Val His Glu Trp Ala
      130          135          140
His Leu Arg Trp Gly Val Phe Asp Glu Tyr Asn Asn Asp Lys Pro Phe
      145          150          155          160
Tyr Ile Asn Gly Gln Asn Gln Ile Lys Val Thr Arg Cys Ser Ser Asp
      165          170          175
Ile Thr Gly Ile Phe Val Cys Glu Lys Gly Pro Cys Pro Gln Glu Asn
      180          185          190
Cys Ile Ile Ser Lys Leu Phe Lys Glu Gly Cys Thr Phe Ile Tyr Asn
      195          200          205
Ser Thr Gln Asn Ala Thr Ala Ser Ile Met Phe Met Gln Ser Leu Ser
      210          215          220
Ser Val Val Glu Phe Cys Asn Ala Ser Thr His Asn Gln Glu Ala Pro
      225          230          235          240
Asn Leu Gln Asn Gln Met Cys Ser Leu Arg Ser Ala Trp Asp Val Ile
      245          250          255
Thr Asp Ser Ala Asp Phe His His Ser Phe Pro Met Asn Gly Thr Glu
      260          265          270
Leu Pro Pro Pro Thr Phe Ser Leu Val Glu Ala Gly Asp Lys Val
      275          280          285
Val Cys Leu Val Leu Asp Val Ser Ser Lys Met Ala Glu Ala Asp Arg
      290          295          300
Leu Leu Gln Leu Gln Gln Ala Ala Glu Phe Tyr Leu Met Gln Ile Val
      305          310          315          320

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1000 700 600 500 400 300 200 100

Glu Ile His Thr Phe Val Gly Ile Ala Ser Phe Asp Ser Lys Gly Glu  
 325 330 335  
 Ile Arg Ala Gln Leu His Gln Ile Asn Ser Asn Asp Asp Arg Lys Leu  
 340 345 350  
 Leu Val Ser Tyr Leu Pro Thr Thr Val Ser Ala Lys Thr Asp Ile Ser  
 355 360 365  
 Ile Cys Ser Gly Leu Lys Lys Gly Phe Glu Val Val Glu Lys Leu Asn  
 370 375 380  
 Gly Lys Ala Tyr Gly Ser Val Met Ile Leu Val Thr Ser Gly Asp Asp  
 385 390 395 400  
 Lys Leu Leu Gly Asn Cys Leu Pro Thr Val Leu Ser Ser Gly Ser Thr  
 405 410 415  
 Ile His Ser Ile Ala Leu Gly Ser Ser Ala Ala Pro Asn Leu Glu Glu  
 420 425 430  
 Leu Ser Arg Leu Thr Gly Gly Leu Lys Phe Phe Val Pro Asp Ile Ser  
 435 440 445  
 Asn Ser Asn Ser Met Ile Asp Ala Phe Ser Arg Ile Ser Ser Gly Thr  
 450 455 460  
 Gly Asp Ile Phe Gln Gln His Ile Gln Leu Glu Ser Thr Gly Glu Asn  
 465 470 475 480  
 Val Lys Pro His His Gln Leu Lys Asn Thr Val Thr Val Asp Asn Thr  
 485 490 495  
 Val Gly Asn Asp Thr Met Phe Leu Val Thr Trp Gln Ala Ser Gly Pro  
 500 505 510  
 Pro Glu Ile Ile Leu Phe Asp Pro Asp Gly Arg Lys Tyr Tyr Thr Asn  
 515 520 525  
 Asn Phe Ile Thr Asn Leu Thr Phe Arg Thr Ala Ser Leu Trp Ile Pro  
 530 535 540  
 Gly Thr Ala Lys Pro Gly His Trp Thr Tyr Thr Leu Asn Asn Thr His  
 545 550 555 560  
 His Ser Leu Gln Ala Leu Lys Val Thr Val Thr Ser Arg Ala Ser Asn  
 565 570 575  
 Ser Ala Val Pro Pro Ala Thr Val Glu Ala Phe Val Glu Arg Asp Ser  
 580 585 590  
 Leu His Phe Pro His Pro Val Met Ile Tyr Ala Asn Val Lys Gln Gly  
 595 600 605  
 Phe Tyr Pro Ile Leu Asn Ala Thr Val Thr Ala Thr Val Glu Pro Glu  
 610 615 620  
 Thr Gly Asp Pro Val Thr Leu Arg Leu Leu Asp Asp Gly Ala Gly Ala  
 625 630 635 640  
 Asp Val Ile Lys Asn Asp Gly Ile Tyr Ser Arg Tyr Phe Phe Ser Phe  
 645 650 655  
 Ala Ala Asn Gly Arg Tyr Ser Leu Lys Val His Val Asn His Ser Pro  
 660 665 670  
 Ser Ile Ser Thr Pro Ala His Ser Ile Pro Gly Ser His Ala Met Tyr  
 675 680 685  
 Val Pro Gly Tyr Thr Ala Asn Gly Asn Ile Gln Met Asn Ala Pro Arg  
 690 695 700  
 Lys Ser Val Gly Arg Asn Glu Glu Glu Arg Lys Trp Gly Phe Ser Arg  
 705 710 715 720  
 Val Ser Ser Gly Gly Ser Phe Ser Val Leu Gly Val Pro Ala Gly Pro  
 725 730 735  
 His Pro Asp Val Phe Pro Pro Cys Lys Ile Ile Asp Leu Glu Ala Val  
 740 745 750

1000  
 900  
 800  
 700  
 600  
 500  
 400  
 300  
 200  
 100  
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<210> 358
<211> 2773
<212> DNA
<213> Homo sapiens
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<400>	358					
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gaaatgataa	ctgaagcttc	attttaccta	tttaatgcta	ccaagagaag	agtatttttc	180
agaaatataa	agattttaat	acctgccaca	tggaaagcta	ataataacag	caaaaataaaa	240
caagaatcat	atgaaaaggc	aaatgtcata	gtgactgact	gggtatgggc	acatggagat	300
gatccataca	cctcataata	cacaggggtg	ggaaaagagg	gaaaatacat	tcatttcaca	360
cctaattttc	tactgaatga	taacttaaca	gtgggtacag	gatacagagg	ccgagtgttt	420
gtccatgaat	gggccacact	ccgttggggt	gtgttcgatg	agtataacaa	tgacaaacct	480
ttctacataa	atgggcaaaa	tcaaattaaa	gtgacaaggt	gttcacttga	catcacaggc	540
attttttgtg	gtgaaaaagg	tccttgcccc	caagaaaact	gtattattag	taagcttttt	600
aaagaaggat	gcacctttat	ctacaatagc	acccaaaatg	caactgcatc	aataatgttc	660
atgcaaagtt	tatcttctgt	ggttgaattt	tgtaatgcaa	gtaccacaaa	ccaagaagca	720
ccaaacctac	agaaccagat	gtgcagcctc	agaagtgcac	gggagtgaat	cacagactct	780
gctgactttc	accacagctt	tcccatgaac	gggactgagc	tcccaccttc	tcccacattc	840
tcgctttgtg	aggctggtga	caaagtggtc	tgtttagtgc	tggatgtgtc	cagcaagatg	900
gcagaggctg	acagactcct	tcaactacaa	caagccgcag	aattttattt	gatgcagatt	960
gttgaaattc	ataccttcgt	gggcattgcc	agtttcgaca	gcaaaggaga	gatcagagcc	1020
cagctacacc	aaattaacag	caatgatgat	cgaaagttgc	tggtttcata	tctgccacc	1080
actgtatcag	ctaaaacaga	catcagcatt	tgttcagggc	ttaagaaagg	atttgagggtg	1140
gttgaaaaac	tgaatggaaa	agcttatggc	tctgtgatga	tattagtgc	cagcggagat	1200
gataagcttc	ttggcaattg	cttaccact	gtgctcagca	gtggttcaac	aattcactcc	1260
attgcccctg	gttcctctgc	agccccaaat	tcggaggaaat	tatcacgtct	tacagagggt	1320
ttaaagttct	ttgtttccga	gatctcaaac	ctgaatagca	tgatctatgc	tttcagtaga	1380
atttctctctg	gaactggaga	cattttccag	caacatatct	agcttgaaag	tacagggtgaa	1440

<400> 361  
Met Gln His His His His His His Trp Gln Pro Leu Phe Phe Lys Trp  
1 5 10 15

Leu Leu Ser Cys Cys Pro Gly Ser Ser Gln Ile Ala Ala Ala Ala Ser  
           20                          25                          30  
 Thr Gln Pro Glu Asp Asp Ile Asn Thr Gln Arg Lys Lys Ser Gln Glu  
           35                          40                          45  
 Lys Met Arg Glu Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu Thr  
           50                          55                          60  
 Ile Pro Gln Thr Ser Ser His Gly Ala Asn Arg Phe Val  
           65                          70                          75

<210> 362  
 <211> 244  
 <212> DNA  
 <213> Homo sapiens

<400> 362  
 catatgcagc atcaccacca tcaccactgg cagcccctct tcttcaagtg gctcttgtcc 60  
 tgttgccctg ggagttctca aattgctgca gcagcctcca cccagcctga ggatgacatc 120  
 aatacacaga ggaagaagag tcaggaaaag atgagagaag ttacagactc tcctgggcca 180  
 ccccagagagc ttaccattcc tcagacttct tcacatggtg ctaacagatt tgtttgatga 240  
 attc 244

<210> 363  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 363  
 Met Trp Gln Pro Leu Phe Phe Lys Trp Leu Leu Ser Cys Cys Pro Gly  
   1                          5                          10                          15  
 Ser Ser Gln Ile  
           20

<210> 364  
 <211> 60  
 <212> DNA  
 <213> Homo sapiens

<400> 364  
 atgtggcagc cctcttctt caagtggctc ttgtcctgtt gccctgggag ttctcaaatt 60

<210> 365  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 365  
 Gly Ser Ser Gln Ile Ala Ala Ala Ala Ser Thr Gln Pro Glu Asp Asp  
   1                          5                          10                          15  
 Ile Asn Thr Gln  
           20

100070013001

<400>	368						
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gggagctggg	gagcccgcag	cggcccggag	ccggagctgg	cgagccgagc	ggagacctgt	120	
gcgcgcgcgc	tctgaggcgc	agcatgtgaa	gcggagacgg	catccagtgg	ggggcgagcc	180	
tctcagccgg	ccgggatggc	taccacggcc	gagctcttcg	aggagccttt	tgtggcagat	240	
gaatatattg	aacgctcttg	attggagaacc	ccaggaggag	gctctagagg	tggacctgaa	300	
gcttttgatc	ctaaaagatt	attagaagaa	tttgtaaatc	atattcagga	atccagata	360	
atggatgaaa	ggattcagag	gaaagtagag	aaactagagc	aacaatgtca	gaaagaagcc	420	
aaggaatttg	ccaagaaggt	acaagagctg	cagaaaagca	atcaggttgc	cttccaacat	480	
ttccaagaac	tagatgagca	cattagctat	gtagcaacta	aagtctgtca	ccttggagac	540	
cagttagagg	gggtaaacac	accagacaa	cgggcagtgg	aggctcagaa	attgatgaaa	600	
tactttaatg	agtttctaga	tggagaattg	aatctgatg	ttttacaaa	ttctgaaaag	660	
ataaaggaag	cagcagacat	cattcagaag	ttgcacctaa	ttgcccaaga	gttacctttt	720	
gatagatttt	cagaagttaa	atccaaaatt	gcaagtaaat	accatgattt	agaatgccag	780	
ctgatttcagg	agttttaccg	tgtctaaaga	agaggtgaaa	ttctcagaat	gataagaagta	840	
gcagcagttt	tacttctatt	taagggttat	tcccattgtg	tgtatgttta	tataaagcag	900	
tgccaggagg	tgctttattt	gagaaattgat	atatttgaag	acgctggaat	actctgtcaa	960	
agagtgaaca	aacaagtttg	agatatcttc	agtaatccag	aaacagtcct	ggctaaactt	1020	
attcaaaatg	tatttgaaat	caaactacag	agttttgtga	aagagcagtt	agaagaatgt	1080	
aggaagtcgg	atgcagagca	atatctcaaa	aatctctatg	atctgtatac	aagaaccacc	1140	
aatctttcca	gcaagctgat	ggagtttaat	ttaggtactg	ataaacagac	tttcttgtct	1200	
aagcttatca	aatccatttt	catttcctat	ttggagaact	atattgaggt	ggagactgga	1260	
tatttgaaaa	gcagaagtgc	tatgatccta	cagcgtatt	atgattcgaa	aaaccatcaa	1320	
aagagatcca	ttggcacagc	aggtattcaa	gatttgaagg	aaagaattatg	acagcgtacc	1380	
aacttaccac	tggggccaag	tatcgatact	catggggaga	ctttttctag	ccaagaagtg	1440	
tggtgttaatc	ttttacaaga	aaccaaacaa	gcctttgaaa	gatgtcatag	gctctctgat	1500	
ccttctgact	taccaaggaa	tgccttcaga	atttttacca	ttcttgtgga	atttttatgt	1560	

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attgagcata ttgattatgc tttggaaaca ggacttgctg gaattccctc ttcagattct 1620
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tttgacaaac agtttaatga tcaccttatg ccactaataa gctcttctcc taagttatct 1740
gaatgccttc agaagaaaaa agaaataatt gaacaaatgg agatgaaatt ggatactggc 1800
attgatagga cattaatgtg tatgattgga cagatgaagc atattttggc tgcagaacag 1860
aagaaaacag attttaagcc agaagatgaa aacaatgttt tgattcaata tactaatgcc 1920
tgtgtaaaaag tctgtgctta cgtaagaaaa caagtggaga agattaaaaa ttccatggat 1980
gggaagaatg tggatacagt tttgatggaa cttggagtag gttttcatcg acttatctat 2040
gagcatcttc aacaatattc ctacagttgt atgggtggca tgttggccat ttgtgatgta 2100
gccgaatata ggaagtgtgc caaagacttc aagattccaa tgggtattaca tctttttgat 2160
actctgcatg ctctttgcaa tcttctggta gttgccccag ataattttaa gcaagtctgc 2220
tcaggagaac aacttgctaa tctggacaag aatatacttc actccttcgt acaacttcgt 2280
gctgattata gatctgcccg ccttgctcga cacttcagct gagattgaat ttacaaagga 2340
att 2343

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<210> 369

<211> 708

<212> PRT

<213> Homo sapiens

<400> 369

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Met Ala Thr Thr Ala Glu Leu Phe Glu Glu Pro Phe Val Ala Asp Glu
1          5          10          15
Tyr Ile Glu Arg Leu Val Trp Arg Thr Pro Gly Gly Gly Ser Arg Gly
20        25        30
Gly Pro Glu Ala Phe Asp Pro Lys Arg Leu Leu Glu Glu Phe Val Asn
35        40        45
His Ile Gln Glu Leu Gln Ile Met Asp Glu Arg Ile Gln Arg Lys Val
50        55        60
Glu Lys Leu Glu Gln Gln Cys Gln Lys Glu Ala Lys Glu Phe Ala Lys
65        70        75        80
Lys Val Gln Glu Leu Gln Lys Ser Asn Gln Val Ala Phe Gln His Phe
85        90        95
Gln Glu Leu Asp Glu His Ile Ser Tyr Val Ala Thr Lys Val Cys His
100       105       110
Leu Gly Asp Gln Leu Glu Gly Val Asn Thr Pro Arg Gln Arg Ala Val
115       120       125
Glu Ala Gln Lys Leu Met Lys Tyr Phe Asn Glu Phe Leu Asp Gly Glu
130       135       140
Leu Lys Ser Asp Val Phe Thr Asn Ser Glu Lys Ile Lys Glu Ala Ala
145       150       155       160
Asp Ile Ile Gln Lys Leu His Leu Ile Ala Gln Glu Leu Pro Phe Asp
165       170       175
Arg Phe Ser Glu Val Lys Ser Lys Ile Ala Ser Lys Tyr His Asp Leu
180       185       190
Glu Cys Gln Leu Ile Gln Glu Phe Thr Ser Ala Gln Arg Arg Gly Glu
195       200       205
Ile Ser Arg Met Arg Glu Val Ala Ala Val Leu Leu His Phe Lys Gly
210       215       220
Tyr Ser His Cys Val Asp Val Tyr Ile Lys Gln Cys Gln Glu Gly Ala
225       230       235       240
Tyr Leu Arg Asn Asp Ile Phe Glu Asp Ala Gly Ile Leu Cys Gln Arg
245       250       255
Val Asn Lys Gln Val Gly Asp Ile Phe Ser Asn Pro Glu Thr Val Leu

```

				260								265								270			
Ala	Lys	Leu	Ile	Gln	Asn	Val	Phe	Glu	Ile	Lys	Leu	Gln	Ser	Phe	Val								
		275					280					285											
Lys	Glu	Gln	Leu	Glu	Glu	Cys	Arg	Lys	Ser	Asp	Ala	Glu	Gln	Tyr	Leu								
	290					295					300												
Lys	Asn	Leu	Tyr	Asp	Leu	Tyr	Thr	Arg	Thr	Thr	Asn	Leu	Ser	Ser	Lys								
305					310						315				320								
Leu	Met	Glu	Phe	Asn	Leu	Gly	Thr	Asp	Lys	Gln	Thr	Phe	Leu	Ser	Lys								
				325					330					335									
Leu	Ile	Lys	Ser	Ile	Phe	Ile	Ser	Tyr	Leu	Glu	Asn	Tyr	Ile	Glu	Val								
			340					345					350										
Glu	Thr	Gly	Tyr	Leu	Lys	Ser	Arg	Ser	Ala	Met	Ile	Leu	Gln	Arg	Tyr								
		355					360					365											
Tyr	Asp	Ser	Lys	Asn	His	Gln	Lys	Arg	Ser	Ile	Gly	Thr	Gly	Gly	Ile								
	370					375					380												
Gln	Asp	Leu	Lys	Glu	Arg	Ile	Arg	Gln	Arg	Thr	Asn	Leu	Pro	Leu	Gly								
385					390						395				400								
Pro	Ser	Ile	Asp	Thr	His	Gly	Glu	Thr	Phe	Leu	Ser	Gln	Glu	Val	Val								
				405					410					415									
Val	Asn	Leu	Leu	Gln	Glu	Thr	Lys	Gln	Ala	Phe	Glu	Arg	Cys	His	Arg								
			420					425					430										
Leu	Ser	Asp	Pro	Ser	Asp	Leu	Pro	Arg	Asn	Ala	Phe	Arg	Ile	Phe	Thr								
		435					440					445											
Ile	Leu	Val	Glu	Phe	Leu	Cys	Ile	Glu	His	Ile	Asp	Tyr	Ala	Leu	Glu								
	450					455					460												
Thr	Gly	Leu	Ala	Gly	Ile	Pro	Ser	Ser	Asp	Ser	Arg	Asn	Ala	Asn	Leu								
465					470					475					480								
Tyr	Phe	Leu	Asp	Val	Val	Gln	Gln	Ala	Asn	Thr	Ile	Phe	His	Leu	Phe								
				485					490					495									
Asp	Lys	Gln	Phe	Asn	Asp	His	Leu	Met	Pro	Leu	Ile	Ser	Ser	Ser	Pro								
			500					505					510										
Lys	Leu	Ser	Glu	Cys	Leu	Gln	Lys	Lys	Lys	Glu	Ile	Ile	Glu	Gln	Met								
		515					520					525											
Glu	Met	Lys	Leu	Asp	Thr	Gly	Ile	Asp	Arg	Thr	Leu	Asn	Cys	Met	Ile								
	530					535					540												
Gly	Gln	Met	Lys	His	Ile	Leu	Al																

690  
Arg His Phe Ser  
705

695

700

&lt;210&gt; 370

&lt;211&gt; 60

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 370

gtcaatcact ctcccagcat aagcacccca gccactcta ttccaggag tcatgctatg 60

&lt;210&gt; 371

&lt;211&gt; 60

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 371

agtagaattt cctctggaac tggagacatt ttccagcaac atattcagct tgaaagtaca 60

&lt;210&gt; 372

&lt;211&gt; 60

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 372

ccagagactg gagatcctgt tacgctgaga ctccctgatg atggagcagg tgctgatgtt 60

&lt;210&gt; 373

&lt;211&gt; 60

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 373

ttacagtctg ctgtatctaa cattgccag gcgcctctgt ttattccccc caattctgat 60

&lt;210&gt; 374

&lt;211&gt; 60

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 374

gctgtgcccc cagccactgt ggaagccttt gtggaaagag acagcctcca ttttctcat 60

&lt;210&gt; 375

&lt;211&gt; 60

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

1000700-13003

<400> 375

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<210> 376

<211> 20

<212> PRT

<213> Homo sapiens

<400> 376

Leu	Gln	Ser	Ala	Val	Ser	Asn	Ile	Ala	Gln	Ala	Pro	Leu	Phe	Ile	Pro
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Pro	Asn	Ser	Asp												
				20											

<210> 377

<211> 20

<212> PRT

<213> Homo sapiens

<400> 377

Val	Asn	His	Ser	Pro	Ser	Ile	Ser	Thr	Pro	Ala	His	Ser	Ile	Pro	Gly
1				5				10					15		
Ser	His	Ala	Met												
				20											

<210> 378

<211> 20

<212> PRT

<213> Homo sapiens

<400> 378

Pro	Glu	Thr	Gly	Asp	Pro	Val	Thr	Leu	Arg	Leu	Leu	Asp	Asp	Gly	Ala
1				5				10						15	
Gly	Ala	Asp	Val												
				20											

<210> 379

<211> 20

<212> PRT

<213> Homo sapiens

<400> 379

Ala	Val	Pro	Pro	Ala	Thr	Val	Glu	Ala	Phe	Val	Glu	Arg	Asp	Ser	Leu
1				5				10						15	
His	Phe	Pro	His												
				20											

<210> 380



<220>  
<223> PCR primer

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<210> 389
<211> 20
<212> PRT
<213> Homo sapiens
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Glu Lys Met Arg Glu Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu  
1 5 10 15  
Thr Ile Pro Gln  
20

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<210> 394
<211> 20
<212> PRT
<213> Homo sapiens
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```
<210> 395
<211> 19
<212> PRT
<213> Homo sapiens
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```
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<211> 19
<212> PRT
<213> Homo sapiens
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```
<210> 397
<211> 20
<212> PRT
<213> Homo sapiens
```

```
<210> 398
<211> 20
<212> PRT
<213> Homo sapiens
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Lys Ile Glu Leu His Gly Lys Pro Ile Glu Val Glu His Ser Val Pro  
 1 5 10 15  
 Lys Arg Gln Arg  
 20

<210> 403  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 403  
 Val Glu His Ser Val Pro Lys Arg Gln Arg Ile Arg Lys Leu Gln Ile  
 1 5 10 15  
 Arg Asn Ile Pro  
 20

<210> 404  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 404  
 Ile Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu  
 1 5 10 15  
 Val Leu Asp Ser  
 20

<210> 405  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 405  
 Ala Val Val Asn Val Thr Tyr Ser Ser Lys Asp Gln Ala Arg Gln Ala  
 1 5 10 15  
 Leu Asp Lys Leu  
 20

<210> 406  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 406  
 Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu Glu  
 1 5 10 15  
 Asn Phe Thr Leu  
 20

<210> 407  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

10070010001

&lt;400&gt; 407

Asn	Gly	Phe	Gln	Leu	Glu	Asn	Phe	Thr	Leu	Lys	Val	Ala	Tyr	Ile	Pro
1				5					10					15	
Asp	Glu	Thr	Ala												
				20											

&lt;210&gt; 408

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 408

Lys	Val	Ala	Tyr	Ile	Pro	Asp	Glu	Thr	Ala	Ala	Gln	Gln	Asn	Pro	Leu
1				5					10					15	
Gln	Gln	Pro	Arg												
				20											

&lt;210&gt; 409

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 409

Ala	Gln	Gln	Asn	Pro	Leu	Gln	Gln	Pro	Arg	Gly	Arg	Arg	Gly	Leu	Gly
1				5					10					15	
Gln	Arg	Gly	Ser												
				20											

&lt;210&gt; 410

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 410

Gly	Arg	Arg	Gly	Leu	Gly	Gln	Arg	Gly	Ser	Ser	Arg	Gln	Gly	Ser	Pro
1				5					10					15	
Gly	Ser	Val	Ser												
				20											

&lt;210&gt; 411

&lt;211&gt; 20

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 411

Ser	Arg	Gln	Gly	Ser	Pro	Gly	Ser	Val	Ser	Lys	Gln	Lys	Pro	Cys	Asp
1				5					10					15	
Leu	Pro	Leu	Arg												
				20											

1000700-13001

<210> 412  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 412  
 Lys Gln Lys Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln  
 1 5 10 15  
 Phe Val Gly Ala  
 20

<210> 413  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 413  
 Leu Leu Val Pro Thr Gln Phe Val Gly Ala Ile Ile Gly Lys Glu Gly  
 1 5 10 15  
 Ala Thr Ile Arg  
 20

<210> 414  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 414  
 Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln Thr  
 1 5 10 15  
 Gln Ser Lys Ile  
 20

<210> 415  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 415  
 Asn Ile Thr Lys Gln Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu  
 1 5 10 15  
 Asn Ala Gly Ala  
 20

<210> 416  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens



gaagacatgc	ttacttcccc	ttcaccttcc	ttcatgatgt	gggaagagtg	ctgcaaccca	60
gccctagcca	acgccgcatg	agagggagtg	tgccgagggc	ttctgagaag	gtttctctca	120
catctagaaa	gaagcgctta	agatgtggca	gccctctctc	ttcaagtggc	tcttgtcctg	180
tctccctggg	agttctcaaa	tgtgtcgagc	agcctccacc	cagcctgagg	atgacatcaa	240
tacacagaqg	aaqaaqaqtc	agqaaaagat	gagagaagtt	acagactctc	ctgggcgacc	300

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ccgagagctt accattcctc agacttcttc acatgggtgct aacagatttg ttcctaaaag 360
taaagctcta gaggccgtca aattggcaat agaagccggg ttccaccata ttgattctgc 420
acatgtttac aataatgagg agcaggttgg actgg 455

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<210> 421

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 421

actagtgtcc gcgtaggcggc ctac

24

<210> 422

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 422

catgagaatt catcacatgc ccttgaaggc tccc

34

<210> 423

<211> 161

<212> PRT

<213> Homo sapiens

<400> 423

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Met Gln His His His His His His Thr Ser Val Arg Val Ala Ala
 1          5          10          15
Tyr Phe Glu Asn Phe Leu Ala Ala Trp Arg Pro Val Lys Ala Ser Asp
          20          25          30
Gly Asp Tyr Tyr Thr Leu Ala Val Pro Met Gly Asp Val Pro Met Asp
          35          40          45
Gly Ile Ser Val Ala Asp Ile Gly Ala Ala Val Ser Ser Ile Phe Asn
          50          55          60
Ser Pro Glu Glu Phe Leu Gly Lys Ala Val Gly Leu Ser Ala Glu Ala
          65          70          75          80
Leu Thr Ile Gln Gln Tyr Ala Asp Val Leu Ser Lys Ala Leu Gly Lys
          85          90          95
Glu Val Arg Asp Ala Lys Ile Thr Pro Glu Ala Phe Glu Lys Leu Gly
          100          105          110
Phe Pro Ala Ala Lys Glu Ile Ala Asn Met Cys Arg Phe Tyr Glu Met
          115          120          125
Lys Pro Asp Arg Asp Val Asn Leu Thr His Gln Leu Asn Pro Lys Val
          130          135          140
Lys Ser Phe Ser Gln Phe Ile Ser Glu Asn Gln Gly Ala Phe Lys Gly
          145          150          155          160
Met

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<210> 424  
 <211> 489  
 <212> DNA  
 <213> Homo sapiens

<400> 424  
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 tttctcgcgg cgtggcggcc cgtgaaagcc tctgatggag attactacac cttggctgta 120  
 ccgatgggag atgtaccaat ggatggatc tctgttgctg atattggagc agccgtctct 180  
 agcattttta attctccaga ggaattttta ggcaaggccg tggggctcag tgcagaagca 240  
 ctaacaatac agcaatatgc tgatgttttg tccaaggctt tggggaaaga agtccgagat 300  
 gcaaagatta ccccggaagc tttcgagaag ctgggattcc ctgcagcaaa ggaaatagcc 360  
 aatatgtgtc gtttctatga aatgaagcca gaccgagatg tcaatctcac ccaccaacta 420  
 aatcccaaag tcaaaagctt cagccagttt atctcagaga accaggagc cttcaagggc 480  
 atgtgatga 489

<210> 425  
 <211> 32  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 425  
 aacaaactgt atatcggaaa cctcagcgag aa 32

<210> 426  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 426  
 ccatagaatt cattacttcc gtcttgactg agg 33

<210> 427  
 <211> 586  
 <212> PRT  
 <213> Homo sapiens

<400> 427  
 Met Gln His His His His His Asn Lys Leu Tyr Ile Gly Asn Leu  
 1 5 10 15  
 Ser Glu Asn Ala Pro Ser Asp Leu Glu Ser Ile Phe Lys Asp Ala  
 20 25 30  
 Lys Ile Pro Val Ser Gly Pro Phe Leu Val Lys Thr Gly Tyr Ala Phe  
 35 40 45  
 Val Asp Cys Pro Asp Glu Ser Trp Ala Leu Lys Ala Ile Glu Ala Leu  
 50 55 60

1000700-1300

Ser Gly Lys Ile Glu Leu His Gly Lys Pro Ile Glu Val Glu His Ser  
 65 70 75 80  
 Val Pro Lys Arg Gln Arg Ile Arg Lys Leu Gln Ile Arg Asn Ile Pro  
 85 90 95  
 Pro His Leu Gln Trp Glu Val Leu Asp Ser Leu Leu Val Gln Tyr Gly  
 100 105 110  
 Val Val Glu Ser Cys Glu Gln Val Asn Thr Asp Ser Glu Thr Ala Val  
 115 120 125  
 Val Asn Val Thr Tyr Ser Ser Lys Asp Gln Ala Arg Gln Ala Leu Asp  
 130 135 140  
 Lys Leu Asn Gly Phe Gln Leu Glu Asn Phe Thr Leu Lys Val Ala Tyr  
 145 150 155 160  
 Ile Pro Asp Glu Thr Ala Ala Gln Gln Asn Pro Leu Gln Gln Pro Arg  
 165 170 175  
 Gly Arg Arg Gly Leu Gly Gln Arg Gly Ser Ser Arg Gln Gly Ser Pro  
 180 185 190  
 Gly Ser Val Ser Lys Gln Lys Pro Cys Asp Leu Pro Leu Arg Leu Leu  
 195 200 205  
 Val Pro Thr Gln Phe Val Gly Ala Ile Ile Gly Lys Glu Gly Ala Thr  
 210 215 220  
 Ile Arg Asn Ile Thr Lys Gln Thr Gln Ser Lys Ile Asp Val His Arg  
 225 230 235 240  
 Lys Glu Asn Ala Gly Ala Ala Glu Lys Ser Ile Thr Ile Leu Ser Thr  
 245 250 255  
 Pro Glu Gly Thr Ser Ala Ala Cys Lys Ser Ile Leu Glu Ile Met His  
 260 265 270  
 Lys Glu Ala Gln Asp Ile Lys Phe Thr Glu Glu Ile Pro Leu Lys Ile  
 275 280 285  
 Leu Ala His Asn Asn Phe Val Gly Arg Leu Ile Gly Lys Glu Gly Arg  
 290 295 300  
 Asn Leu Lys Lys Ile Glu Gln Asp Thr Asp Thr Lys Ile Thr Ile Ser  
 305 310 315 320  
 Pro Leu Gln Glu Leu Thr Leu Tyr Asn Pro Glu Arg Thr Ile Thr Val  
 325 330 335  
 Lys Gly Asn Val Glu Thr Cys Ala Lys Ala Glu Glu Glu Ile Met Lys  
 340 345 350  
 Lys Ile Arg Glu Ser Tyr Glu Asn Asp Ile Ala Ser Met Asn Leu Gln  
 355 360 365  
 Ala His Leu Ile Pro Gly Leu Asn Leu Asn Ala Leu Gly Leu Phe Pro  
 370 375 380  
 Pro Thr Ser Gly Met Pro Pro Pro Thr Ser Gly Pro Pro Ser Ala Met  
 385 390 395 400  
 Thr Pro Pro Tyr Pro Gln Phe Glu Gln Ser Glu Thr Glu Thr Val His  
 405 410 415  
 Leu Phe Ile Pro Ala Leu Ser Val Gly Ala Ile Ile Gly Lys Gln Gly  
 420 425 430  
 Gln His Ile Lys Gln Leu Ser Arg Phe Ala Gly Ala Ser Ile Lys Ile  
 435 440 445  
 Ala Pro Ala Glu Ala Pro Asp Ala Lys Val Arg Met Val Ile Ile Thr  
 450 455 460  
 Gly Pro Pro Glu Ala Gln Phe Lys Ala Gln Gly Arg Ile Tyr Gly Lys  
 465 470 475 480  
 Ile Lys Glu Glu Asn Phe Val Ser Pro Lys Glu Glu Val Lys Leu Glu  
 485 490 495

1000700-13001  
 1000700-13001

Ala His Ile Arg Val Pro Ser Phe Ala Ala Gly Arg Val Ile Gly Lys  
                   500                  505                  510  
 Gly Gly Lys Thr Val Asn Glu Leu Gln Asn Leu Ser Ser Ala Glu Val  
                   515                  520                  525  
 Val Val Pro Arg Asp Gln Thr Pro Asp Glu Asn Asp Gln Val Val Val  
                   530                  535                  540  
 Lys Ile Thr Gly His Phe Tyr Ala Cys Gln Val Ala Gln Arg Lys Ile  
 545                  550                  555                  560  
 Gln Glu Ile Leu Thr Gln Val Lys Gln His Gln Gln Gln Lys Ala Leu  
                   565                  570                  575  
 Gln Ser Gly Pro Pro Gln Ser Arg Arg Lys  
                   580                  585

&lt;210&gt; 428

&lt;211&gt; 1764

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 428

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gtcccaaaaa ggcaaggat tcggaaactt cagatacgaa atatcccgcc tcatttacag 300
tgaggagtgc tggatagttt actagtccag tatggagtgg tggagagctg tgagcaagtg 360
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caagcactag acaaaactgaa tggatttcag ttagagaatt tcaccttgaa agtagcctat 480
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&lt;210&gt; 429

&lt;211&gt; 35

&lt;212&gt; DNA

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Tyr	Asn	Gly	Leu 20	Leu	Ile	Ala	Ile	Asn 25	Pro	Gln	Val	Pro	Glu	Asn 30	Gln
Asn	Leu	Ile 35	Ser	Asn	Ile	Lys	Glu 40	Met	Ile	Thr	Glu	Ala 45	Ser	Phe	Tyr
Leu	Phe 50	Asn	Ala	Thr	Lys	Arg 55	Arg	Val	Phe	Phe 60	Arg	Asn	Ile	Lys	Ile
Leu 65	Ile	Pro	Ala	Thr 70	Trp	Lys	Ala	Asn	Asn 75	Asn	Ser	Lys	Ile	Lys 80	Gln
Glu	Ser	Tyr	Glu 85	Lys	Ala	Asn	Val	Ile 90	Val	Thr	Asp	Trp	Tyr	Gly 95	Ala
His	Gly	Asp	Asp 100	Pro	Tyr	Thr	Leu	Gln 105	Tyr	Arg	Gly	Cys	Gly 110	Lys	Glu
Gly	Lys	Tyr 115	Ile	His	Phe	Thr	Pro 120	Asn	Phe	Leu	Leu	Asn 125	Asp	Asn	Leu
Thr	Ala 130	Gly	Tyr	Gly	Ser	Arg 135	Gly	Arg	Val	Phe 140	Val	His	Glu	Trp	Ala
His 145	Leu	Arg	Trp 150	Gly	Val	Phe	Asp	Glu	Tyr 155	Asn	Asn	Asp	Lys	Pro	Phe 160
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Val	Cys 290	Leu	Val	Leu	Asp 295	Val	Ser	Ser	Lys	Met 300	Ala	Glu	Ala	Asp	Arg
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 Gly Lys Ala Tyr Gly Ser Val Met Ile Leu Val Thr Ser Gly Asp Asp  
 385 390 395 400  
 Lys Leu Leu Gly Asn Cys Leu Pro Thr Val Leu Ser Ser Gly Ser Thr  
 405 410 415  
 Ile His Ser Ile Ala Leu Gly Ser Ser Ala Ala Pro Asn Leu Glu Glu  
 420 425 430  
 Leu Ser Arg Leu Thr Gly Gly Leu Lys Phe Phe Val Pro Asp Ile Ser  
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 450 455 460  
 Gly Asp Ile Phe Gln Gln His Ile Gln Leu Glu Ser Thr Gly Glu Asn  
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 Val Gly Asn Asp Thr Met Phe Leu Val Thr Trp Gln Ala Ser Gly Pro  
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 Pro Glu Ile Ile Leu Phe Asp Pro Asp Gly Arg Lys Tyr Tyr Thr Asn  
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 Gly Thr Ala Lys Pro Gly His Trp Thr Tyr Thr Leu Asn Asn Thr His  
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 565 570 575  
 Ser Ala Val Pro Pro Ala Thr Val Glu Ala Phe Val Glu Arg Asp Ser  
 580 585 590  
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 595 600 605  
 Phe Tyr Pro Ile Leu Asn Ala Thr Val Thr Ala Thr Val Glu Pro Glu  
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 Thr Gly Asp Pro Val Thr Leu Arg Leu Leu Asp Asp Gly Ala Gly Ala  
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 Asp Val Ile Lys Asn Asp Gly Ile Tyr Ser Arg Tyr Phe Phe Ser Phe  
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 660 665 670  
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 675 680 685  
 Val Pro Gly Tyr Thr Ala Asn Gly Asn Ile Gln Met Asn Ala Pro Arg  
 690 695 700  
 Lys Ser Val Gly Arg Asn Glu Glu Glu Arg Lys Trp Gly Phe Ser Arg  
 705 710 715 720  
 Val Ser Ser Gly Gly Ser Phe Ser Val Leu Gly Val Pro Ala Gly Pro  
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 1000700-13001

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<210> 431
<211> 2646
<212> DNA
<213> Homo sapiens
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<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR primer

<400> 432

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36

<210> 433

<211> 371

<212> PRT

<213> Homo sapiens

<400> 433

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 35          40          45
Lys Met Arg Glu Val Thr Asp Ser Pro Gly Arg Pro Arg Glu Leu Thr
 50          55          60
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 65          70          75          80
Lys Ala Leu Glu Ala Val Lys Leu Ala Ile Glu Ala Gly Phe His His
 85          90          95
Ile Asp Ser Ala His Val Tyr Asn Asn Glu Glu Gln Val Gly Leu Ala
100          105          110
Ile Arg Ser Lys Ile Ala Asp Gly Ser Val Lys Arg Glu Asp Ile Phe
115          120          125
Tyr Thr Ser Lys Leu Trp Ser Asn Ser His Arg Pro Glu Leu Val Arg
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Pro Ala Leu Glu Arg Ser Leu Lys Asn Leu Gln Leu Asp Tyr Val Asp

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 Ile Pro Lys Asp Glu Asn Gly Lys Ile Leu Phe Asp Thr Val Asp Leu  
                                  180                      185                      190  
 Cys Ala Thr Trp Glu Ala Met Glu Lys Cys Lys Asp Ala Gly Leu Ala  
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 Lys Ser Ile Gly Val Ser Asn Phe Asn His Arg Leu Leu Glu Met Ile  
                                  210                      215                      220  
 Leu Asn Lys Pro Gly Leu Lys Tyr Lys Pro Val Cys Asn Gln Val Glu  
 225                                   230                      235                      240  
 Cys His Pro Tyr Phe Asn Gln Arg Lys Leu Leu Asp Phe Cys Lys Ser  
                                  245                      250                      255  
 Lys Asp Ile Val Leu Val Ala Tyr Ser Ala Leu Gly Ser His Arg Glu  
                                  260                      265                      270  
 Glu Pro Trp Val Asp Pro Asn Ser Pro Val Leu Leu Glu Asp Pro Val  
                                  275                      280                      285  
 Leu Cys Ala Leu Ala Lys Lys His Lys Arg Thr Pro Ala Leu Ile Ala  
 290                                   295                      300  
 Leu Arg Tyr Gln Leu Gln Arg Gly Val Val Val Leu Ala Lys Ser Tyr  
 305                                   310                      315                      320  
 Asn Glu Gln Arg Ile Arg Gln Asn Val Gln Val Phe Glu Phe Gln Leu  
                                  325                      330                      335  
 Thr Ser Glu Glu Met Lys Ala Ile Asp Gly Leu Asn Arg Asn Val Arg  
                                  340                      345                      350  
 Tyr Leu Thr Leu Asp Ile Phe Ala Gly Pro Pro Asn Tyr Pro Phe Ser  
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 Asp Glu Tyr  
 370

<210> 434  
 <211> 1119  
 <212> DNA  
 <213> Homo sapiens

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 catgtttaca ataatgagga gcaggttgga ctggccatcc gaagcaagat tgcagatggc 360  
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<213> Artificial Sequence

<220>  
<223> Primer

<400> 435  
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<212> DNA  
<213> Artificial Sequence

<220>  
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<400> 436  
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<210> 437  
<211> 37  
<212> DNA  
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<400> 437  
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<220>  
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<400> 438  
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<210> 439  
<211> 933  
<212> DNA  
<213> Homo sapiens

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1000700-1300

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&lt;210&gt; 440

&lt;211&gt; 822

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 440

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&lt;210&gt; 441

&lt;211&gt; 2311

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 441

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<210> 442
<211> 226
<212> PRT
<213> Homo sapiens
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35 40 45

Tyr Asp His Tyr Phe Pro Ile Ser His Ile Arg Leu Trp Ala Leu Gln  
65 70 75 80

Leu Ile Phe Val Ser Ser Pro Ala Leu Leu Val Ala Met His Val Ala  
85 90 95

Tyr Arg Arg His Glu Lys Lys Arg Lys Phe Ile Lys Gly Glu Ile Lys  
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 Ser Glu Phe Lys Asp Ile Glu Glu Ile Lys Thr Gln Lys Val Arg Ile  
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 Glu Gly Ser Leu Trp Trp Thr Tyr Thr Ser Ser Ile Phe Phe Arg Val  
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 Ile Phe Glu Ala Ala Phe Met Tyr Val Phe Tyr Val Met Tyr Asp Gly  
 145 150 155 160  
 Phe Ser Met Gln Arg Leu Val Lys Cys Asn Ala Trp Pro Cys Pro Asn  
 165 170 175  
 Thr Val Asp Cys Phe Val Ser Arg Pro Thr Glu Lys Thr Val Phe Thr  
 180 185 190  
 Val Phe Met Ile Ala Val Ser Gly Ile Cys Ile Leu Leu Asn Val Thr  
 195 200 205  
 Glu Leu Cys Tyr Leu Leu Ile Arg Tyr Cys Ser Gly Lys Ser Lys Lys  
 210 215 220  
 Pro Val  
 225

<210> 443  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 443  
 Val Lys Leu Cys Gly Ile Asp Pro Cys Pro Asn Leu Val Asp Cys Phe  
 5 10 15

Ile Ser Arg Pro Gly Cys Gly  
 20

<210> 444  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> PCR primer

<400> 444  
 caatcaggca tgcacaacaa actgtatatc ggaaac

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<400> 446
Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser
      5                      10                      15

Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro
      20                      25                      30

Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser
      35                      40                      45

Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His
      50                      55                      60

Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile
      65                      70                      75                      80

Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val
      85                      90                      95

Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln
      100                      105                      110

Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser
      115                      120                      125

Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu
      130                      135                      140

Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala
      145                      150                      155                      160

Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln
      165                      170                      175

Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys
      180                      185                      190

Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly

```

195					200					205					
Ala 210	Ile	Ile	Gly	Lys	Glu	Gly 215	Ala	Thr	Ile	Arg	Asn 220	Ile	Thr	Lys	Gln
Thr 225	Gln	Ser	Lys	Ile	Asp 230	Val	His	Arg	Lys	Glu 235	Asn	Ala	Gly	Ala	Ala 240
Glu	Lys	Ser	Ile	Thr 245	Ile	Leu	Ser	Thr	Pro 250	Glu	Gly	Thr	Ser	Ala 255	Ala
Cys	Lys	Ser	Ile 260	Leu	Glu	Ile	Met	His 265	Lys	Glu	Ala	Gln	Asp 270	Ile	Lys
Phe	Thr	Glu 275	Glu	Ile	Pro	Leu	Lys 280	Ile	Leu	Ala	His	Asn 285	Asn	Phe	Val
Gly	Arg 290	Leu	Ile	Gly	Lys	Glu 295	Gly	Arg	Asn	Leu	Lys 300	Lys	Ile	Glu	Gln
Asp 305	Thr	Asp	Thr	Lys	Ile 310	Thr	Ile	Ser	Pro	Leu 315	Gln	Glu	Leu	Thr	Leu 320
Tyr	Asn	Pro	Glu	Arg 325	Thr	Ile	Thr	Val	Lys 330	Gly	Asn	Val	Glu	Thr 335	Cys
Ala	Lys	Ala	Glu 340	Glu	Glu	Ile	Met	Lys 345	Lys	Ile	Arg	Glu	Ser 350	Tyr	Glu
Asn	Asp	Ile 355	Ala	Ser	Met	Asn	Leu 360	Gln	Ala	His	Leu	Ile 365	Pro	Gly	Leu
Asn	Leu 370	Asn	Ala	Leu	Gly	Leu 375	Phe	Pro	Pro	Thr	Ser 380	Gly	Met	Pro	Pro
Pro 385	Thr	Ser	Gly	Pro	Pro 390	Ser	Ala	Met	Thr	Pro 395	Pro	Tyr	Pro	Gln	Phe 400
Glu	Gln	Ser	Glu	Thr 405	Glu	Thr	Val	His	Leu 410	Phe	Ile	Pro	Ala	Leu 415	Ser
Val	Gly	Ala	Ile 420	Ile	Gly	Lys	Gln	Gly 425	Gln	His	Ile	Lys	Gln 430	Leu	Ser
Arg	Phe	Ala 435	Gly	Ala	Ser	Ile	Lys 440	Ile	Ala	Pro	Ala	Glu 445	Ala	Pro	Asp
Ala	Lys	Val	Arg	Met	Val	Ile 455	Ile	Thr	Gly	Pro	Pro 460	Glu	Ala	Gln	Phe
Lys 465	Ala	Gln	Gly	Arg	Ile 470	Tyr	Gly	Lys	Ile	Lys 475	Glu	Glu	Asn	Phe	Val 480
Ser	Pro	Lys	Glu	Glu 485	Val	Lys	Leu	Glu	Ala 490	His	Ile	Arg	Val	Pro	Ser 495



Arg Arg Lys

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<210> 447
<211> 1743
<212> DNA
<213> Homo sapiens
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<400>	447						
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atcttcaagg	acgccaagat	cccggtgctg	ggacccttcc	tggatgaagac	tggctacgcg	120	
ttcgtggact	gcccggacga	gagctgggcc	ctcaaggcca	tcgaggcgct	ttcaggtaaa	180	
atagaactgc	acgggaaaac	catagaagtt	gagcactcgg	tcccaaaaag	gcaaaggatt	240	
cggaaacttc	agatacgaaa	tatccgcgct	catttacaagt	gggagggtgc	ggatagttta	300	
ctagtccagt	atggagtggt	ggagagctgt	gagcaagtga	acactgactc	ggaaactgca	360	
gttgtaaatg	taacctattc	cagtaaggac	caagctagac	aagcactaga	caaactgaat	420	
ggatttcagt	tagagaattt	caccttgaaa	gtagcctata	tccctgatga	aacggccgcc	480	
cagcaaaacc	ccttgcagca	gccccgaggt	cgccgggggc	ttgggcagag	gggctcctca	540	
aggcaggggt	ctccagggatc	cgtatccaag	cagaaaccat	gtgatttgcc	tctgcgcctg	600	
ctggttccca	cccaatttgt	tggagccatc	ataggaaaag	aagggtgccac	cattcggaac	660	
atcacaacac	agaccagctc	taaaattcgat	gtccaccgta	aagaaaatgc	ggggctgtct	720	
gagaagtcga	tctactatct	ctctactcct	gaaggcacct	ctgcggcttg	taagtctatt	780	
ctggagatta	tgcataagga	agctcaagat	ataaaattca	cagaagagat	ccccttgaag	840	
attttagctc	ataataactt	tgttggaagt	cttatttgta	aagaaggaag	aaatcttaaa	900	
aaaattgagc	aagacacaga	cactaaaatc	acgatatctc	cattgcagga	attgacgctg	960	
tataatccag	aacgcactat	tacagttaaa	ggcaatgttg	agacatgtgc	caaagctgag	1020	
gaggagatca	tgaagaaaat	cagggagctc	tatgaaaatg	atattgcttc	tatgaatctt	1080	
caagcacatt	taattctctg	attaaatctg	aacgccttgg	gtctgttccc	accacttca	1140	
gggatgccac	ctcccactgc	agggcccctc	tcagccatga	ctctccctca	cccgcagttt	1200	
gagcaatcag	aaacgggagc	tgttcatctg	tttatcccg	ctctatcagt	cggtgccatc	1260	
atcggaagc	agggccagca	catcaagcag	ctttctcgct	ttgctggagc	ttcaattaag	1320	
attgctccag	cggaagcacc	agatgctaaa	gtgaggatgg	tgattatcac	tggaccacca	1380	
gaggctcagt	tcaaggctca	gggaagaatt	tatggaaaaa	ttaaagaaga	aaactttggt	1440	
agtcctaaag	aagagggtgaa	acttgaagct	catatcagag	tgccatcctt	tgctgctggc	1500	
agagttattg	gaaaaggagc	caaaacggtg	aatgaacttc	agaatttgtc	aagtgcagaa	1560	
gttgttgtcc	ctcgtgagca	gacacctgat	gagaattacc	aagtggttgt	caactaaact	1620	
ggtcacttct	atccttgcca	qgttgcccaq	aqaaaaattc	aqgaatttct	cactcaaqta	1680	

aagcagcacc aacaacagaa ggctctgcaa agtggaccac ctcagtcaag acggaagtaa 1740  
tga 1743

<210> 448  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> PCR primer

<400> 448  
cgtactagca tatgaacaaa ctgtatatcg gaaac

35

<210> 449  
<211> 579  
<212> PRT  
<213> Homo sapiens

<400> 449  
Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser  
5 10 15  
Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro  
20 25 30  
Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser  
35 40 45  
Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His  
50 55 60  
Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile  
65 70 75 80  
Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val  
85 90 95  
Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln  
100 105 110  
Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser  
115 120 125  
Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu  
130 135 140  
Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala  
145 150 155 160  
Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln  
165 170 175

1740  
1743  
35  
449  
579  
PRT  
Homo sapiens  
449  
Met Asn Lys Leu Tyr Ile Gly Asn Leu Ser Glu Asn Ala Ala Pro Ser  
5 10 15  
Asp Leu Glu Ser Ile Phe Lys Asp Ala Lys Ile Pro Val Ser Gly Pro  
20 25 30  
Phe Leu Val Lys Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser  
35 40 45  
Trp Ala Leu Lys Ala Ile Glu Ala Leu Ser Gly Lys Ile Glu Leu His  
50 55 60  
Gly Lys Pro Ile Glu Val Glu His Ser Val Pro Lys Arg Gln Arg Ile  
65 70 75 80  
Arg Lys Leu Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu Val  
85 90 95  
Leu Asp Ser Leu Leu Val Gln Tyr Gly Val Val Glu Ser Cys Glu Gln  
100 105 110  
Val Asn Thr Asp Ser Glu Thr Ala Val Val Asn Val Thr Tyr Ser Ser  
115 120 125  
Lys Asp Gln Ala Arg Gln Ala Leu Asp Lys Leu Asn Gly Phe Gln Leu  
130 135 140  
Glu Asn Phe Thr Leu Lys Val Ala Tyr Ile Pro Asp Glu Thr Ala Ala  
145 150 155 160  
Gln Gln Asn Pro Leu Gln Gln Pro Arg Gly Arg Arg Gly Leu Gly Gln  
165 170 175

Arg Gly Ser Ser Arg Gln Gly Ser Pro Gly Ser Val Ser Lys Gln Lys  
 180 185 190  
 Pro Cys Asp Leu Pro Leu Arg Leu Leu Val Pro Thr Gln Phe Val Gly  
 195 200 205  
 Ala Ile Ile Gly Lys Glu Gly Ala Thr Ile Arg Asn Ile Thr Lys Gln  
 210 215 220  
 Thr Gln Ser Lys Ile Asp Val His Arg Lys Glu Asn Ala Gly Ala Ala  
 225 230 235 240  
 Glu Lys Ser Ile Thr Ile Leu Ser Thr Pro Glu Gly Thr Ser Ala Ala  
 245 250 255  
 Cys Lys Ser Ile Leu Glu Ile Met His Lys Glu Ala Gln Asp Ile Lys  
 260 265 270  
 Phe Thr Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Asn Phe Val  
 275 280 285  
 Gly Arg Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu Gln  
 290 295 300  
 Asp Thr Asp Thr Lys Ile Thr Ile Ser Pro Leu Gln Glu Leu Thr Leu  
 305 310 315 320  
 Tyr Asn Pro Glu Arg Thr Ile Thr Val Lys Gly Asn Val Glu Thr Cys  
 325 330 335  
 Ala Lys Ala Glu Glu Glu Ile Met Lys Lys Ile Arg Glu Ser Tyr Glu  
 340 345 350  
 Asn Asp Ile Ala Ser Met Asn Leu Gln Ala His Leu Ile Pro Gly Leu  
 355 360 365  
 Asn Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro  
 370 375 380  
 Pro Thr Ser Gly Pro Pro Ser Ala Met Thr Pro Pro Tyr Pro Gln Phe  
 385 390 395 400  
 Glu Gln Ser Glu Thr Glu Thr Val His Leu Phe Ile Pro Ala Leu Ser  
 405 410 415  
 Val Gly Ala Ile Ile Gly Lys Gln Gly Gln His Ile Lys Gln Leu Ser  
 420 425 430  
 Arg Phe Ala Gly Ala Ser Ile Lys Ile Ala Pro Ala Glu Ala Pro Asp  
 435 440 445  
 Ala Lys Val Arg Met Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe  
 450 455 460  
 Lys Ala Gln Gly Arg Ile Tyr Gly Lys Ile Lys Glu Glu Asn Phe Val

1000  
 900  
 800  
 700  
 600  
 500  
 400  
 300  
 200  
 100  
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<210> 450
<211> 1743
<212> DNA
<213> Homo sapiens
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<400>	450						
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ttcgtggact	gcccggacga	gagctgggcc	ctcaaggcca	tcgaggcgct	ttcaggtaaa	180	
atagaactgc	acgggaaacc	catagaagtt	gagcactcgg	tccaaaaaag	gcaaaggatt	240	
cggaaacttc	agatacgaa	tatccgcct	cattttacagt	gggaggtgct	ggatagttta	300	
ctagtccagt	atggagtgg	ggagagctgt	gagcaagtga	acactgactc	ggaaactgca	360	
gtgttaaattg	taacctattc	cagtaaggac	caagctagac	aagcactaga	caaaactgaat	420	
ggatttcagt	tagagaattt	caccttgaaa	gtagcctata	tcctgatga	aacggccgcc	480	
cagcaaaacc	cettgcagca	gccccgaggt	cgccgggggc	ttgggcagag	gggtcctca	540	
aggcaggggt	ctccaggatc	cgtatccaag	cagaaaccat	gtgatttgcc	tctgcgcctg	600	
ctggttccca	cccaatttgt	tggagccatc	ataggaaaag	aagggtgccac	cattcggaac	660	
atcaccaaac	agaccagtc	taaaatcgat	gtccaccgta	aagaaaatgc	gggggctgct	720	
gagaagtcca	ttactatcct	ctctactcct	gaaggcacct	ctgcggett	taagtctatt	780	
ctggagatta	tgcataagga	agctcaagat	ataaaattca	cagaagagat	ccccctgaag	840	
attttagctc	ataataacct	tgttgagctg	cttattggta	aagaaggaa	aaatctaaa	900	
aaaattgagc	aagacacaga	cactaaaatc	acgatattct	cattgcagga	attgacgctg	960	
tataatccag	aacgcactat	tacagttaaa	ggcaatggtg	agacatgtgc	caaagctgag	1020	
gaggagatca	tgaagaaaat	cagggagtct	tatgaaaatg	atattgcttc	tatgaatctt	1080	
caagcacatt	taattcctgg	attaaatctg	aacgccttgg	gtctgttccc	accacttca	1140	
gggatgccac	ctccaccctc	agggccctct	tcagccatga	ctcctcccta	cccgcagttt	1200	
gagcaatcag	aaacgggagc	tgttcatctg	tttatccag	ctctatcagt	cggtgccatc	1260	
atcggaacgc	agggccagca	catcaagcag	ctttctcgct	ttgctggagc	ttcaattaa	1320	
attgtctcag	cgggaagcacc	agatcgtaaa	gtgaggatgg	tgatttacac	tggaccacca	1380	
gaggctcagt	tcaaggtcca	gggaagaatt	tatggaaaaa	ttaaagaaga	aaactttgtt	1440	
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<210> 451
<211> 25
<212> PRT
<213> Homo sapiens
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Lys Leu Gly Phe Pro Ala Ala Lys Glu  
20 25

<400> 452  
Lys Ala Ser Asp Gly Asp Tyr Tyr Thr Leu Ala Val Pro Met Gly Asp  
                  5                       10                       15

Val Pro Met Asp Gly Ile Ser Val Ala  
20 25

<400> 453  
Pro Asp Arg Asp Val Asn Leu Thr His Gln Leu Asn Pro Lys Val Lys  
                  5                  10                  15

<400> 454  
Lys Ile Ala Pro Ala Glu Ala Pro Asp Ala Lys Val Arg Met Val Ile  
                  5                  10                  15

Ile Thr Gly Pro

Val Leu Asp Ser  
20

<210> 463  
<211> 20

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<400> 463
Leu Asn Ala Leu Gly Leu Phe Pro Pro Thr Ser Gly Met Pro Pro Pro
              5              10              15
Thr Ser Gly Pro
              20

```

```

<400> 464
Lys Ile Ala Pro Ala Glu Ala Pro Asp Ala Lys Val Arg Met Val Ile
          5                      10                      15

Ile Thr Gly Pro
          20

```

<400> 465  
 Thr Gly Tyr Ala Phe Val Asp Cys Pro Asp Glu Ser Trp Ala Leu Lys Ile  
                   5                  10                  15  
 Glu

<400> 466  
Phe Val Asp Cys Pro Asp Glu Ser Trp Ala Leu  
                    5                    10

```
<400> 467
ttcgtggact gcccggacga gagctgggcc etc
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33



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<400> 469
Ile Pro Asp Glu Thr Ala Ala Gln Gln Asn Pro Ser Pro Gln Leu Arg
          5                      10                      15

Gly Arg Arg Gly Pro Gly Gln Arg
          20

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